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AS AN OFFICIAL JOURNAL

THE CHEMIST AND DRUGGIST is supplied regularly to every member of the following Societies:—PHARMACEUTICAL SOCIETY OF IRELAND, SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION, OTAGO PHARMACEUTICAL ASSOCIATION, PHARMACEUTICAL SOCIETY OF QUEENSLAND, PHARMACEUTICAL SOCIETY OF SOUTH AUSTRALIA, PHARMACEUTICAL SOCIETY OF WESTERN AUSTRALIA, and TASMANIAN PHARMACEUTICAL SOCIETY.

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POSTCARD COMPETITIONS.
SEPTEMBER.

FOR our current competition we are taking a rather risky subject. We appeal to counter-prescribers. Each person who joins in this competition is asked to send in a couple of formulæ (the two on one postcard preferred) for medicines which have been or may be successfully and suitably supplied in complaints which are so frequently described over the counter. The formulæ sent in will be submitted to a medical man, and we may say as a guide to competitors that we fully share his prejudices against chemists undertaking the treatment of any but the most ordinary disorders. All subscribers, their families, and their employés are invited to compete, and all cards must be sent in before the end of this month. The usual guinea (at least) will be awarded for the best pair of formulæ.

THE CHEMISTS' AND DRUGGISTS' DIARY, 1895.

WE have this popular volume in hand, and will be putting some sheets of the literary pages to press within the next ten days. We confidently anticipate that the 1895 DIARY will be one of the most popular of the series, and worthy in every way of its position as the first of trade diaries. The publisher is not neglecting his part in the making of the volume, and he will be glad to receive early demands for space.

Summary.

TWO makers of saccharin are having a legal tilt in Germany just now (p. 447).

THE carbolic demon is represented in all its horrors in a Reynolds sketch on p. 447.

WE give a page of Australasian news, dealing with pharmacy in those colonies (p. 448).

SEVERAL nice points in dispensing are discussed in our queries in that department (p. 469).

A REPUTED cure for consumption is reported from Geneva. It is hypodermic injections of asses' serum (p. 459).

A DIFFICULTY which has occurred in regard to the drawback allowed on exported tinctures is explained on p. 458.

MR. RICHARD BUSH has given an interviewer some points in regard to caraway-cake, which are very entertaining (p. 460).

A SOUTH AFRICAN chemist has had to pay damages to a pseudo-doctor for using some strong expressions regarding him (p. 447).

MR. E. J. PARRY communicates a note on the detection of cedar oil in sandalwood-oil capsules, a sophistication which exists (p. 460).

THE cause of some storekeepers who have had to pay penalties to the Pharmaceutical Society is espoused by *Truth* (p. 459).

THE men who obtained "Fly Cemeteries" under false pretences are to have five years' State seclusion for their enterprise (p. 444).

THE position of chlorate of potash, especially as it is affected by Swedish competition, is commented on in an Editorial article (p. 457).

OUR Antwerp Exhibition reporter continues his description of the show, dealing in the present contribution with the Belgian exhibits (pp. 462-3).

HEREFORD chemists know how to turn a holiday and their windows to good account. We print a note about what they did on festival week (p. 445).

BRIGHTON "chemists and chemistesses" spent a happy day at Hastings and Winchelsea last week, Mr. Martindale acting as guide and host (p. 444).

WE give abstracts of some of the papers read at the meeting of the American Pharmaceutical Association held at Ashville, N.C., a fortnight ago (p. 450).

ANOTHER new process for the electrolytic production of caustic soda and chlorine is announced. Mr. Castner, of aluminium fame, being the inventor (p. 457).

A CORONER at Sidmouth has warned a chemist's assistant in regard to the sale of poisons, a case of phosphorus-paste poisoning being the cause of the remarks (p. 444).

ADULTERATED or deficient drugs are the subject of several successful prosecutions. Tr. rhei, tr. camph. co., troch. bismuthi, and ground ginger were in question (p. 452).

BUSINESS in the drug-market seems to be improving. Such is the general impression. An advance in star-anise and cassia oils, due to the war in the East, is reported (p. 464).

WE describe a number of novelties to-day—viz., a new medical battery, hæmoferum (new hæmatinic), some 'cute things from Maw's, three new tabloids, and a "Fairy" lamp-blacket (p. 449).

IN the course of an inquest on a carbolic-acid fatality Coroner Danford Thomas has pointedly called attention to the necessity of placing the sale of the acid under Pharmacy Act restriction (p. 444).

CORRESPONDENTS this week deal with a curious mortar inscription, allege that wholesale drug-houses are inclined to send out special instead of B.P. galenicals, criticise Mr. Wanklyn's claim to have re-established 6 as the atomic weight of carbon, and call on Irish pharmacists to discuss the company-question at their coming annual meeting (p. 468).

English News.

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

Dr. Danford Thomas on Carbolic Poisoning.

On September 13, Dr. Danford Thomas held an inquest at St. Pancras concerning the death of Joseph Lomas, aged 3½, son of a cabdriver, who died under the following circumstances: Kate Lomas, the mother, stated that on the previous Monday evening the deceased, who had followed her upstairs, had found on the first landing a stone bottle. Deceased directly afterwards came into the room, and she found that his lips were white and that he appeared to be choking. He had drunk from the ginger-beer bottle that contained carbolic acid and belonged to someone in the house. She at once took him to the Royal Free Hospital, where he died the same evening. Mrs. Harriet Roberts, living in the same house, stated that a relative had got some carbolic acid from the Clerkenwell Vestry, and had given her a portion of it in a ginger-beer bottle. She took it home, used some, and left the bottle on the table, and afterwards missed it. She thought that one of the children must have taken the bottle from the table and left it on the stairs. The Coroner said it was most dangerous indeed to place such a deadly poison as carbolic acid in a ginger-beer bottle, especially when it was not labelled. He had known many deaths caused in this way. At present he knew that the Pharmaceutical Society was making an endeavour to have carbolic acid placed in the schedule of the Sale of Poisons Act, so that it should not be sold by anyone, especially by oil-shopkeepers, &c., in any vessel that might be brought, and too often without being labelled "Poison." Representations had also been made by juries to the Government on the matter, but up to the present nothing had been done, there being, no doubt, many difficulties to be overcome, because the article was used for trade purposes; but it was time something was done. The jury returned a verdict of death from misadventure.

Getting Fly-papers by False Pretences.

William Trantz (36), Emile Trantz (35), agents, and George Charles Frühling (45), were found guilty at the Central Criminal Court on September 14, of obtaining goods by false pretences, a large quantity of fly-papers from Messrs. Tunbridge & Wright, of Reading, being one of the chief lines; and Alexander Joseph (42), agent, was convicted of receiving the property. The three first-named prisoners obtained goods from various firms under false pretences and never paid for them. Most of the property so obtained found its way to the shop of the prisoner Joseph. Inspector Cross, who, with Detectives Bacon and Austen, arrested the prisoners, said the police had received about forty complaints from different parts of the country about them. Mr. Commissioner Kerr said he could see no difference in the cases against the accused, and sentenced them each to five years' penal servitude.

Competition in South London.

At the South-Western Police Court, on September 14, James Lambert, a traveller, employed by Messrs. White & Co., ginger-beer manufacturers, answered a summons for violently assaulting Edward Nash, who occupied a similar position in the service of rival manufacturers—Messrs. Beaufoy & Co. There was a cross summons for an assault. Mr. Taylor, who appeared for the complainant Nash, said that in June last Lambert was fined at the Wimbledon Petty Sessions for committing an assault upon Nash. Notwithstanding this, he repeated his attack on August 31. The attacks were no doubt the result of trade jealousy. The travellers employed by Messrs. Beaufoy had been subjected to considerable annoyance, and something must be done to put a stop to this form of intimidation. Nash said that on August 31 he was at Tooting, when the defendant tried to force his whip from his hand, and struck him several blows in the face. He denied having struck the first blow.

Mr. Hoskin, who defended, called Lambert, who said he was first molested and abused by Nash. They had a fair fight, and during the second round he fell and injured his ankle. Mr. Hopkins said he believed Lambert had brought the whole thing upon himself. He would have to pay a fine of 5*l.* or go to prison for one month in default. The cross-summons was dismissed.

In Mistake for Teething-powder.

A curious poisoning case occurred at Wigan on September 13, the victim being a child 7 months old, named John Vacey. The previous evening the mother had gone to a chemist's and purchased a teething-powder, which she took home in her pocket and gave to the child, which became very ill and died the following day. The mother afterwards found the powder unopened in her pocket, and it is supposed that in taking the powder from the counter at the chemist's she picked up another, which must have contained poison.

Brighton Association of Pharmacy.

The members of the above Association held their first outing on September 12, when an excursion was made to Hastings. The party, which included ladies, numbered some sixty persons, and proceeded by train to Hastings, where breakfasts were in readiness to drive them to Winchelsea and Rye. At Winchelsea a visit was paid to the residence of Mr. W. Martindale, ex-Mayor, where light refreshments were served, after which the party drove on to Rye, where luncheon was served at the George Hotel. At the close of the repast the usual loyal toasts were drunk, and the Chairman (Mr. W. H. Gibson) then proposed the health of Mr. W. Martindale, their guest and guide that day. The toast was enthusiastically received, and Mr. Martindale suitably responded, drawing a humorous contrast between the invasion of the towns of Winchelsea and Rye by the French centuries ago and that by the members of the Brighton Pharmacy Association that day, observing that theirs was a peaceful invasion, despite the fact that they had amongst them a "Savage." (Laughter.) In conclusion, he said he was sure they would find much to interest them in the district. The company then proceeded, under the guidance of Mr. Martindale, to inspect the various objects of interest and antiquity in the town of Rye, after which the drive back to Hastings was taken, whence the return journey to Brighton was made by train. The outing was a great success, and it is proposed to make it an annual affair. The arrangements were carried out by the Hon. Sec., Mr. W. W. Savage. Interesting photographs of "Brighton Chemists and Chemistesses on the Spree," "Mr. W. W. Savage, Conductor," and "Mr. Martindale pointing out the Magnolia Grandiflora," which we have received, show how good a time the party had.

The Sale of Poisons.

An inquest was held at Sidmouth, on September 12, touching the death of John James Beacon, aged 30, who died after taking some rat-paste.

Percy Morris Cobley, assistant to Mr. Rowland Chessall, chemist, Sidmouth, said he remembered the deceased buying the poison, which he said he wanted to kill some rats. It was known as "phosphorus paste," and persons buying it were not required to sign their names.

Medical evidence showed that deceased suffered from epileptic fits, and that death was due to phosphorus poisoning.

The Coroner commented strongly on the way in which the poison had been sold. He did not wish to suggest that the result would not have been the same had deceased been required to sign his name when purchasing the paste, but no doubt in another case it might have prevented death. Perhaps, if the deceased had had to sign his name he might not have bought the poison. Addressing the assistant-chemist, he advised him to make every inquiry of persons purchasing deadly poisons. The ordinary precautions did not appear to have been taken in this case, due to the fact that the particular poison was not mentioned in the schedule of the Act of Parliament. It seemed to him (the Coroner) that there was just the same necessity for a person to sign his name when purchasing poison like that in the jar as for those buying prussic acid, or any other deadly poison.

The jury returned a verdict to the effect that deceased

committed suicide by taking poison, and added a rider that they considered no blame was attached to the chemist, who was simply discharging his usual duties.

Fires.

On September 7 a fire broke out in the shop of Mr. C. F. Wyatt, chemist, High Street, Rochester. The fire was caused by the ignition of a mixture of turpentine and oil, which was being heated for the manufacture of furniture-polish. Mr. Wyatt, in trying to carry the pot out of doors was forced to drop it, and the burning oil set fire to the woodwork of the shop. As the flames prevented access to the water-supply, Mr. Wyatt and his assistant adopted the method of extinguishing the flames with soda-water, which was played on to the fire from syphons. This proved successful, and the fire was speedily got under, the carbonic acid gas from the soda-water, no doubt, helping largely in the result.

The Melbourne Wharf, occupied by Messrs. Tidman & Son (Limited), sea-salt merchants, and extending from Wapping High Street to the river Thames, was destroyed by fire on Sunday evening last. The fire was first observed shortly before 9 o'clock on one of the upper floors. The news was soon in circulation among the fire stations on the north and south sides of the Thames, and powerful land and river brigade forces attended. At a quarter-past nine the flames reached a great strength, and it was feared that they would extend to the large adjoining warehouse, but the firemen were successful in restricting the mischief to Messrs. Tidman's premises, but it has not interfered with the business of the firm.

Cockermouth Chemists Protest.

The chemists and druggists of Cockermouth have protested against allegations made at the last meeting of Board of Guardians, and reported in our issue of last week. As a result, it is probable that the chemists of the district will be invited to tender for supply of drugs.

The Half-holiday.

The chemists and druggists of Ashford (Kent) have agreed to close their shops on Wednesdays, at 5 o'clock, from October 1 to March 31, and from the latter date until September 30 an hour earlier on the same day.

Drug-contract.

The Strood, Kent, Board of Guardians have accepted the tender of Mr. A. B. Acworth, of Strood, for the supply for the six months, from October 4, of Sanitas soap at 29s. per cwt., Sanitas fluid at 9s. 2d. per dozen pint bottles, vinegar at 8d. per gallon, crushed linseed at 13s. 9d. per cwt., and for yellow soap, soft soap, tobacco, and other articles.

An Overdose of Chloral.

Last week a young Englishman named Lancaster, a cripple, was spending his vacation in Jersey. He went to the shop of Mr. R. F. Davis, chemist, of Colombarie Street, St. Helier, and produced two bottles labelled "Solution of Chloral—40 grs. to the ounce," with his name, and the words "Dose one teaspoonful," written beneath as if by a doctor's prescription. He told the assistant—a young man named Jean—that he wanted this for a sleeping-draught, and also to prevent sea-sickness, as he was shortly returning to England; he had, he said, taken chloral before, and used 20 grs. for a dose. Mr. Jean cautioned his customer as to using the drug, and filled the order. Mr. Lancaster was found dead in bed on the following morning. He had taken the whole of the chloral, equal to 160 grs.

Eight Pounds for a Pup.

At the Grimby County Court, last week, Edward Fields Williamson, manufacturing chemist and dog-breeder, claimed 8l. damages from Benjamin Thomas Wright, farmer, of Old Clee, for the death of a collie pup, which had been left in his charge at 1s. a week. Defendant took it out with his horse and cart, and accidentally ran over and killed it. His Honour said he could find nothing that would make Mr. Wright liable, and, therefore, gave a verdict for the defendant.

Methylated Spirit in the East-end.

A number of chemists and oilmen in the East-end of London have been asked and have complied with the request not to serve methylated spirit on Saturday evenings. The results are reported to have been highly beneficial.

They Held High Festival.

Last week being Hereford Festival Week, the city was full of visitors, and some of the chemists made their windows attractive for the occasion. In Broad Street Messrs. Chare & Jackson had a large windowful of sponge, relieved with Wye Valley Bouquet and other specialties. Mr. Haines, High Town, had a big show of photographic materials, and had the prizes of the local photographic society on view. Messrs. Ralph & Clarke had a display of their proprietaries, and Mr. Warburton's show of perfumery and toilet-requisites looked very neat. Mr. Walker, in Wide Marsh Street, no doubt expecting the visitors would be thirsty, was exhibiting citrate of magnesia in large quantities; also a good line in smelling-bottles and numerous proprietaries. Mr. Pearmund, in Eign Street, also made a big show of photographic-apparatus, neatly displayed; and, further on, Mr. Guy had a big display of proprietaries, feeding-bottles, toilet articles, and some very fine show crystals.

A New Chemical Company at St. Helens.

A new company for the purchase of chemical-works in St. Helens is in course of formation, and Colonel Holland and Mr. Walter, of the *Times*, are said to have consented to join the directorate, with Mr. John Leith, chemical-manufacturer, St. Helens, as general manager. It is understood that if present negotiations are satisfactorily completed the new company will deal largely with the manufacture of bleaching-powder and caustic soda.

A Double Dose.

A laborer named Garton, living at Castle Donington, last week sent a little girl to the shop of Mr. Farmer, chemist and druggist, for 3d. worth of laudanum. He met her as she came from the shop and saying to her "I am going to drink it," tore the paper off, and drank the contents of the bottle as he stood in the street. He then gave her another 2d., and told her to go to Mr. Parker's, chemist, for 2d. worth more and take it to his mother. This she did, and Garton's mother subsequently gave him a small teaspoonful of the opiate. He was found dead in bed next morning.

London v. Liverpool Sentences.

The *Standard* trusts that the attention of Mr. Hopwood, the Recorder of Liverpool, will be drawn to a case that came before Mr. Commissioner Kerr at the Old Bailey this week. The prisoner, a man named Samuel Long, was described as an oil merchant. But his chief occupation for some time has consisted in obtaining goods upon false pretences. In the prosecution of this precarious and risky business, he came into collision with the law at Liverpool, and was duly brought before the Recorder for obtaining tartaric acid from chemical brokers on false pretences, who imposed upon Long a sentence of six months' imprisonment with hard labour. The oil merchant served his time and was restored to society. Yet Mr. Hopwood's leniency failed to correct his bad habits. He promptly returned to his evil courses. But next time he did not fare so easily. He came before Mr. Commissioner Kerr at the Old Bailey, from whom he received a sentence of five years' penal servitude.

Chemists and Wine-licences.

At the Cardiff adjourned Brewster Sessions, on Tuesday, wine-licences were granted to Mr. David Anthony, chemist, of St. Mary Street, and Mr. Edward Edwards, chemist, of Mackintosh Place.

Carbolic Poisonings.

An inquest was held at Wavertree on September 17 relative to the death of Ellen Chase (46), who died from carbolic acid poisoning. Evidence showed that deceased, who was a widow, and had to support a son, only earned 11s. per week, and had been much depressed of late. The jury returned a verdict of suicide whilst temporarily insane.

On September 14, the daughter, aged 3 years, of Mr. Austen Taylor, of Liverpool, was given a dose of medicine by her nurse and shortly after was found in a comatose state. It transpired that the medicine-bottle contained a quantity of carbolic acid, which the nurse had given in mistake. Prompt medical aid being forthcoming, the child recovered.

An hotel-keeper at Gainsborough died on September 17 through swallowing carbolic acid by mistake. He had been in financial difficulties, and had taken to drink, and on the evening in question took the acid in mistake for liquor, under the influence of which he was at the time. At the inquest on September 19 the jury returned a verdict of death by misadventure.

Nicholls Saw through the Trick.

At the meeting of the Nottingham Board of Guardians on Tuesday Dr. Dabell moved: "That the method of supplying drugs to the dispensaries by contract be continued; drugs, &c., required which are not included in the contract to be supplied by the contractor, to whom 20 per cent. over the wholesale-house price-list be allowed." Mr. Burton seconded the proposition. Mr. Nicholls: I shall oppose the resolution. My reason is that it is proposed by a doctor and seconded by a druggist. (Laughter.) Mr. Fleeman moved as an amendment, and Mr. T. Palmer seconded, that the word "net" be inserted before the words "price-list." Dr. Dabell and Mr. Burton accepted this, and this resolution in its amended form was adopted by twenty-six votes against three.

Irish News.

Examination Announcements.

Pharmaceutical Assistants' examinations are to be held at Dublin and Belfast on Wednesday, October 10. Wednesday, September 26, will be the last day for lodging applications for same.

A Registered Druggist examination is to be held at Dublin on Thursday, October 11. Thursday, September 27, will be the last day for lodging applications for same.

A Registered Druggist examination is to be held at Belfast (if twelve apply) on Tuesday, October 16. Tuesday, October 2, will be the last day for lodging applications for same.

Scotch News.

A Gala Day.

William Irvine, druggist, Galashiels, appeared before the Hawick Bailie last week to answer a charge of breaking a glass show-card in the shop of John Riddle, fish merchant, while under the influence of drink. He expressed regret, and was dismissed with an admonition.

A Trip.

Thirty members and friends of the Edinburgh Pharmacy Athletic Club went, on Monday, to Crichton Castle by a four-in-hand, the ribbons being taken by a Club member. Dinner, a photographic group, and dancing on the green were the chief attractions, apart from keen enjoyment of the lovely district. The party returned to Edinburgh at 10.30.

French Pharmaceutical News.

(From our Paris Correspondent.)

A FIRE, due to an accident, broke out last Monday morning at 7 o'clock at the Raspail Pharmaceutical Manufactory, Arceuil. It occurred in a separate building specially used for melting camphor. The local firemen succeeded in

extinguishing the conflagration, and the damage is covered by insurance.

DEATH FROM ADMINISTRATION OF SPONGE.—A peculiar case of infanticide was reported a short time ago at a meeting of the Medico-Legal Society of Paris. An infant five months old died without showing any symptoms of disease. The body was exhumed and examined after some months. No traces of poison were found, but in the intestines were discovered several pieces of sponge, and Professor Caseneuve gave it as his opinion that they were administered for the purpose of killing the child. The opinion was based on the fact that the sponge presented a cut surface, and on the knowledge that pieces of sponge soaked in fat are placed about to kill stray dogs in certain parts of the country. The jury accepted this view and found a verdict of guilty against the mother.

PRIZES FOR CHEMICAL RESEARCH.—The French Society for the Encouragement of National Industry has issued a list of prizes to be offered for competition next year in connection with chemical research. The following are some of the principal subjects proposed:—(1) Recent progress in the manufacture of chlorine; prize, 2,000f. (2) The Utilisation of the Residues of Manufactories; prize, 1,000f. (3) A prize of 2,000f. for an experimental study of the physical or mechanical properties of one or several metals or alloys, chosen from those that are in current use. (4) 2,000f. for manufacturing in France, for trade purposes, anhydrous sulphuric acid and "smoking" sulphuric acid. A special note is given with each subject explaining the reasons for which the prize is offered, but it is understood that the money will be withheld in the event of the papers sent in not proving sufficiently interesting.

POISONED CHOCOLATE.—On Sunday, September 16, a widow name Madame Adamski, of Troyes, who since her husband's death has led a somewhat loose life, her favours being principally showered on a retired pharmacist of the town, met with her death under mysterious circumstances. On the morning of the day when she died she received a box of chocolates through the post, accompanied by a note reading, "Tuesday evening, at the Lion, 8 o'clock." She ate two of the chocolates, but almost immediately experienced severe internal pains, and cried, "I am poisoned." She was treated medically, but died soon afterwards. Before dying, however, she made a statement implicating the pharmacist referred to and a woman of her own class. The police went to the pharmacist's residence and searched his premises, discovering, behind a row of books, chocolates hollowed from the bottom, similar to those which had produced the poisoning, and near them was a packet of strychnine. The pharmacist was arrested later in the day, and he and his supposed accomplice are in prison.

POISONED LOBSTERS.—There has been quite a small epidemic of poisoning by lobsters in Paris this summer. Recently a family named Barbier was poisoned in this way, and Madame Barbier still remains in a precarious state. The researches made in this connection by the Municipal Laboratory tend to prove that the mishaps caused by the lobsters are due to various causes:—(1) That the lobsters may be poisoned by the unwholesome way they are fed when stored in the various seaports. (2) When cooked they are stored in Paris in contaminated ice taken from ponds. M. Girard considers all inconvenience in this direction can be obviated if people will only take care that the lobsters are still living when bought. M. Moissan, professor of toxicology at the Paris School of Pharmacy, in the course of an interview on the subject, has expressed the opinion that fish should be eaten with the greatest possible precaution in summer. This, he says, on account of the well-known fact that putrefaction takes place more quickly in fish than in meat, and the poisonous effects are also greater. M. Moissan has an idea that a lobster "corner" is occasionally made in the Paris markets, with a view to increasing prices, and if this only lasts a day the danger to the consumer is increased thereby.

PHARMACISTS v. HERBALIST.—The Tribunal of the town of Nîmes recently condemned a herbalist of that place to a fine of 500f. for illegal practice of pharmacy, in spite of an ingenious pleading by the defendant. The Pharmaceutical Syndicate of the district appeared as prosecutors.

and the herbalist was charged with selling a preparation of his own composition under the name of "Hygienic Syrup." He contended that if a medicinal character was attributed to the syrup of which the formula does not exist in the Codex, it must be treated as a secret remedy which the pharmacists themselves have not the right to sell. Consequently he held that the Syndicate had no interest in the matter, and therefore no right to prosecute. In substance, however, the defence was that the syrup was merely a hygienic product capable of being sold in the ordinary way of trade. The Judge did not fall in with this way of thinking, but decided that, secret or not, a remedy sold by a non-pharmacist is a competition to pharmacy proper, and, as analysis had proved that the preparation contained ingredients of a medicinal character, judgment was given for the plaintiffs. In addition to the fine, the Syndicate was accorded 100*l.* for damages, and the sentence was ordered to be published in a newspaper of Nimes, to be selected by the plaintiff Society.

Foreign and Colonial News.

A SAFETY-MATCH FACTORY has been established at Kertosono, in Java.

A VALUABLE SHOP.—As a matter of curiosity, it may be recorded that a "drug-store" has recently been sold in a Missouri town for the munificent sum of \$80.

THE APOTHEKER-TRIBE.—Between January 1, 1876, and July 1, 1894, the number of pharmacies in the German Empire has increased from 4,416 to 5,175. The increase has been most marked in Berlin, where the number has risen from 64 to 168.

HYGIENIC CONGRESS EXCURSION.—About three hundred of the members of the Hygienic Congress, which met in Budapest recently, went for an outing to Constantinople in three special trains. They stopped at Belgrade on the way, and were entertained by the authorities of that city. Redvan Pasha, Prefect of Constantinople, acting upon orders of the Sultan, afforded the excursionists special facilities to see the city.

TAXING ARTIFICIAL SWEETENERS IN GERMANY.—The German Imperial Government are still casting about for easily-taxable commodities. The authorities of various towns have recently been instructed to collect information regarding the consumption of saccharin and other synthetically-produced sweeteners, and the uses to which they are put. It is believed that this inquiry is related to a proposed tax upon the substances in question.

THE RIVAL SACCHARINS.—A lawsuit concerning patent-rights is in process of evolution between the German firms of Fahlberg, List & Co., the original manufacturers of saccharin, and Dr. von Heyden Nachfolger. On September 4, the Saxon Landgericht granted an interim injunction prohibiting Fahlberg, List & Co. (pending the decision of the main point at issue) from stating in any form whatever that the saccharin sold by Von Heyden Nachfolger is prepared by infringement of Fahlberg's patent.

"ROUGH ON RATS" AT EAST LONDON.—A remarkable instance of good feeling between rival pharmacists was given on the occasion of an inquest held at East London, Cape Colony, the other day, upon the body of a man who had poisoned himself with "Rough on Rats." The suicide, on the evening of July 17, came into Mr. James McJannet's pharmacy and purchased some laudanum. Later on, "flushed and hesitative," he returned for "Rough on Rats." Mr. McJannet smelt one, and refused the request. The man departed, saying he must have it that night. So Mr. McJannet sent around to Lennon & Co.'s, the neighbouring chemists, warning them to be cautious about supplying poison to a person answering the description of the deceased. Unfortunately, the would-be suicide had called at Lennon's before the message arrived, secured the wished-for poison, and rendered himself in a suitable condition for an inquest, which was held in due course.

A "PHARMACY FAIR" IN BOSTON, U.S.A.—A "Pharmacy Fair," the first show of the kind ever attempted in America, is to be held in the Mechanics' Hall Boston, U.S.A., next May. The projector of the "Fair" is Mr. Benjamin Johnson,

publisher of the *New England Druggist*, and the undertaking is said to be supported by some of the foremost American pharmacists. The exhibition will be open for about three weeks, and is expected to embrace both the wholesale and retail pharmaceutical business. Showcases will be devoted to exhibits of the methods of chemical teaching, showing the work of students in chemical bibliography, with apparatus illustrating the "position" of atoms in the molecule, and a set of students' apparatus. There will be a quantitative exhibit of the constituents of foods and medicines, articles of this class being presented in certain quantities by weight, each important constituent which is chemically free in the compound being shown as a separate preparation in the average natural proportion in which it exists in the article. It is also expected that the great Chicago exhibit of Harvard University will be secured. This case contains samples of over 200 new compounds, as well as 50 old substances specially investigated in the chemical laboratory of the University.

PHARMACIST v. QUACK.—The town of Jagersfontein, Orange Free State, South Africa, has been much excited over a libel action brought against Mr. Norwood Coaker, of the Iron Apothek, by one Crawford E. G. Bruce, who had been practising in the locality for some time as a medical man. Mr. Bruce complained that his professional and private character had been assailed by the defendant in a series of letters to private persons and to the local Press, and claimed 1,000*l.* damages. Mr. Coaker pleaded justification, and produced a large array of witnesses, who gave evidence that Bruce was not a qualified medical man, that he tried to pass off as a valid qualification a "so-called diploma" of no value, that he knew nothing of medicine, was a foul-mouthed drunkard, and a liar. The plaintiff admitted not being a physician, but claimed that he possessed medical knowledge, "having attended twenty-four lectures during the years 1874-76," and that there was nothing in the laws of the Free State to prevent his using such knowledge and receiving money for his services. In addition to the statements already mentioned, Mr. Coaker had sent letters to the Press alleging that a certain individual (meaning Bruce, according to the plaintiff's allegation) had murdered a certain Dr. Evans at Jagersfontein, and referred to Bruce as a "swindler, blackleg, and murderer, kicked out of all decent society." This is a specimen of Mr. Coaker's vigorous vernacular—it occurred in a letter to plaintiff:—"Who and what are you? A gentleman, eh? too lazy to work. A hanger-on at 5*s.* a visit if anyone will listen to your silly old yarns, half concocted out of imagination, and half out of the dregs of a misspent life of dawdling idiotcy and vacant boozing. Widows and orphans do not bless you. Your Uitenhage career is not O.K." The Court considered the language too strong, even for the scorching "veld" of Jagersfontein, and awarded plaintiff costs and 25*l.* damages as a recompense for his injured feelings and the damage done to his "profession."



A DEFECTIVE SCHEDULE.

Australasian News.

THE following information concerning Australasian pharmaceutical affairs is based upon information contained in the August issue of the *Chemist and Druggist of Australasia*, published in Melbourne:—

BUSINESS IN QUEENSLAND—A travelling-representative, who was in Brisbane recently in the interests of Pears' soap, Allen & Hanburys' preparations, Clarke's night-lights, &c., reports business fairly good, considering the times and when compared with the other colonies.

JAPANESE SULPHUR FOR AUSTRALIA—A cargo of sulphur was brought to Sydney by the ship *Omeo* at the end of June, from the port of Hakodate. The mineral is carried in mats from the mines to Hakodate port by rail, a distance of forty miles, and is then transhipped to lighters and from lighters to the ship by stovedores of both sexes. This is the first cargo of sulphur brought to Australia from Japan.

A SOAP LAWSUIT IN N.S.W.—The case of Pears v Field, in which, last year, the plaintiffs obtained an injunction restraining the defendant from manufacturing a certain soap, came again before the Equity Court in Sydney on July 24, in the shape of an application to examine witnesses in England on commission. Mr. Justice Owen granted the application, observing that it would be a matter of extreme inconvenience to bring Mr. Barrett (the head-partner of the business in London) out to Australia when he was only required to contradict the evidence given as to a conversation between him and the defendant.

SPURIOUS LABELS IN VICTORIA—The Victorian Customs Department has discovered that perfumery of local manufacture has been placed on the market with labels imitating those of well-known foreign goods. Among other counterfeits the label and bottle covering Johann Maria Farina's eau de Cologne has been so well simulated that only an expert can detect the fraud. The manufacturers concerned have been let off with a caution this time, "as they appeared to be imperfectly acquainted with the law in the matter," but any future infringement of the Merchandise Marks Act will be followed with legal proceedings.

A CHEMIST CANDIDATE FOR PARLIAMENT—There has just been a general election in N.S.W. It was the first under the new Act which provides for payment of members and single-member constituencies. As a result candidates, like the "bishops in their shovel-hats" in "The Gondoliers," were "plentiful as tabby-cats." In some constituencies a round dozen fought for a single seat. In Sherbrooke ten would-be M.P.'s wooed the electorate, among them being Mr. W. G. Bladen, chemist, of Parramatta. Mr. Bladen was one of seven free-trade candidates, and although he only received a small number of votes, he may console himself in the fact that four others had fewer supporters than he, and that the successful member was a free-trader as well as he.

DOCTOR v. CHEMIST: A PRESCRIPTION QUARREL—On July 8 last, Dr. F. Cheetham, a qualified medical practitioner, of Port Melbourne, sued Mr. P. M. Hendry, a local chemist, for the recovery of 11. 1s costs incurred in connection with a threatened action for slander, Cheetham v. Hendry. The plaintiff's case was that on May 21 last he prescribed for the child of a Mrs. Rice, one of the ingredients mentioned being apomorphia. Mr. Hendry, to whose shop the prescription was taken, omitted the apomorphia from it. This action, together with the reason said to have been given by defendant for not dispensing the medicine as directed, the plaintiff looked upon as likely to do him professional injury. He therefore consulted a solicitor, who wrote defendant on the subject, and defendant subsequently agreed to publish an apology in the local paper and pay the lawyer's fee of 11. 1s., on condition that no further action should be taken. Defendant inserted in the *Port Melbourne Tribune* the following statement:—"I, P. M. Hendry, of Port Melbourne, chemist, regret a misapprehension which was caused by me through the manner in which I dispensed Dr. Cheetham's prescription for Mrs. Rice's baby. I had no intention of casting any reflection on Dr. Cheetham whatever." He refused, however, to pay the costs incurred, and was therefore sued for the amount. In evidence defendant

denied that the payment of costs was any part of the bargain. As to the prescription, he considered that it was so peculiarly written that a chemist was justified in attributing to it a meaning different to that intended. He did not know whether the poisonous ingredient was to be included in the medicine or dispensed separately, and therefore did not dispense it at all. The Bench found for the plaintiff, with 11. 3s. 6d. costs against defendant.

N. ZEALAND CHEMISTS AND THE PHARMACY BILL—More fortunate than their brethren of N.S.W., the N. Zealand chemists have the satisfaction that a new Pharmacy Bill has passed its second reading in the N.Z. Parliament, and will in all probability become law this session. A delicate point, however, is the question whether unqualified men who have carried on business as pharmacists for three years shall be admitted either without any examination into the pharmaceutical fold or kept outside. The chemists want to keep them out; the Ministry wants them brought in. The Bill as it stands has met with considerable opposition in Parliament, and in the House of Representatives the Premier stated that, although he would not oppose it at its present stage, he thought it would require modification in committee. At a special meeting of the N.Z. Pharmacy Board, called to consider the Bill, Dr. Newman, the member in charge of the measure, strongly urged the Board to put in some clause admitting the unqualified men to registration, otherwise he was sure the Bill would be completely spoilt in committee. The Board adjourned to communicate with its constituents, but, as a result of these communications, they have declined to modify the Bill. It is pointed out, however, that the Bill does not affect herbalists, or sellers of medicines or even poisons, so long as they do not represent themselves to be chemists qualified for dispensing doctors' prescriptions.

N.S.W. CHEMISTS AND THE CENSUS—The result of the N.S.W. census of April 5, 1891, concerning the occupations of the people has only just been published. It reveals a considerable discrepancy between the number of chemists on the pharmaceutical register of the colony and the number of persons who claimed to belong to the pharmaceutical profession. The register for January, 1891, contains the names of 508 chemists. On the night of April 5 the total number of individuals who returned themselves as chemists and druggists or pharmaceutical chemists was 918, including 4 females. The explanation of this discrepancy seems to be the inclusion of those under age and unqualified by the census. The census return gives one chemist to every 1,224 of population in the colony. Sydney, in which 34 per cent. of the inhabitants of the colony reside, contains 51 per cent. of its chemists, an average of 1 to 753 of population. In Melbourne the average is 1 to 664. The N.S.W. country districts had 378 chemists, or an average of 1 to every 1,944 (in Victoria 1 to 1,747). Of the total number in N.S.W., 200, including 4 females, were returned as employers, and 176 as engaged on their own account—a total of 376 principals, or 40.9 per cent. of the whole, which is considerably less than in Victoria (61 per cent.) or New Zealand (66 per cent.). The 918 chemists are distributed as to ages in another table, and it is interesting to compare the figures with those of Victoria:—

	Years of age						Total
	Und. 15	15-20	20-25	25-45	45-65	65 & up.	
N.S.W. ..	31	160	144	447	111	24	918
Victoria ..	42	152	183	476	208	39	1,058

The difference in total number between chemists in Victoria and in New South Wales is 140, and of this number no fewer than 112 fall between the ages of 45 and upwards. Where have the older chemists gone in New South Wales? Are they dead or living in retirement? On the census-night 2 males were returned as chemists in the shipping population, and were probably passengers. Of the unemployed, 32 were in the metropolis, and 12 in the country. Eighteen chemists were in public institutions, 2 in general hospitals, 3 in lunatic asylums, 5 in benevolent asylums, and 8 in gaols (in official capacities), and one chemist's assistant was found sleeping in a public park.

Notes of Novelties

FAIRY-LAMP BRACKET.

CLARKE'S PYRAMID AND FAIRY LIGHT COMPANY (LIMITED), of Cricklewood, N.W., are introducing a new artistic bronze bracket for fairy lamps, which should assist in making the lamps and lights go merrily. The bracket sells at 6d., and, with a tiny lamp upon it, is the very thing that is wanted for corners where oil-lamps and gas are impossible. Chemists will find them excellent for shop decoration about Christmas-time, or, indeed, at any time. The lamps are for use with the "Pyramid" lights.

SOME NEW TABLOIDS.

MESSRS. BURROUGHS, WELLCOME & Co. send us three new kinds of tabloids this week—viz., an Easton's syrup tabloid, nicely sugar-coated and each being equal to 5j. (there is room for one with 3ss., a dose more frequently prescribed than 5j.). Bismuth salicylate in 5-grain tabloids is the second sample. This compound is obtaining increased reputation as a sedative for irritation of the alimentary canal, especially in typhoid. The third tabloid is a compound one (pepsin gr. j., bism. carb. gr. ij., carbon ligni gr. ij.), and for cases of indigestion it should be useful. All these compressed goods disintegrate with readiness when placed in water, and not before.

HÆMOFERRUM.

THIS is a natural proteid compound of iron, which Messrs. F. Stearns & Co., of Detroit and London, are manufacturing in the form of "pilloids." As the name implies, it is the iron compound contained in the blood, and the makers claim for it properties as a hæmatinic and nutrient which are not possessed by any artificial iron-compound. It has already been pointed out in THE CHEMIST AND DRUGGIST that French physicians have secured splendid results in the treatment of anæmia, and other debilities due to blood-poverishment, with hæmoglobin. We understand that Messrs. Stearns' product is a compound of a similar nature, and it is presented by them in a form which will give English physicians an opportunity of comparing results with their continental *confrères*. A copy of a pamphlet on hæmoferum can be obtained on application to Messrs. Stearns' London office, 25 Lime Street, E.C.

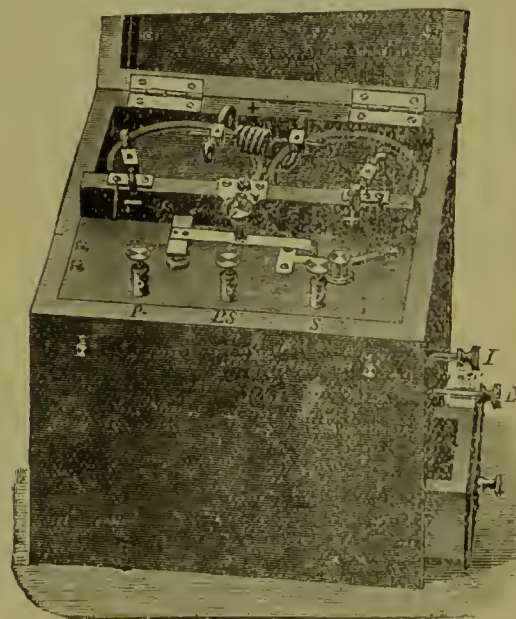
SOME NOVELTIES AT MAW'S.

DURING a call at Messrs. S. Maw, Son & Thompson's show-rooms a representative of this journal saw some new things, which many in the trade may not yet have seen. First he noted the application of aluminium as a mountant for smelling-bottles, a collar of the metal giving a finishing touch to the bottle equal to a silver collar, and with the great advantage that the aluminium does not tarnish. Mr. Carter told our representative that they now stock a large variety of articles made of the metal, such as funnels, evaporating-dishes, pus and sputum basins, and there seems to be no doubt that the metal is becoming quite as popular as it is useful. Amongst toilet-novelties shown in the cases are a fine selection of hand-mirrors and similar goods made of ebony in very pretty patterns, and some of them inlaid with Chippendale lines of ivory. These are very nice, and are quite fashionable just now. Nickel nail-nippers, made on the principle of cigar-cutters, are the latest fancy in

manicure, and we should think they have come to stay, for they are cheap and can be used as easily with the left hand as with the right—no mean advantage. Odorators are a constant attraction in the show-room, but never before have we seen anything so wonderful as the 6d. one, 2-nickel-mounted fluted globo bottle (3 oz. capacity), fitted with valve-action ball. It is a marvel in three colours. Mr. Carter pointed out an improvement in the more expensive odorators, the inner tube being composed of two parts, one of them I.R., so easily removed that choking is quickly overcome. We have previously called attention to the handsome white crystal show jars which are always on exhibition in the room, and now we may mention that the variety of shapes is increased, and the prices lowered. For show carboys majolica pillar-stands are now becoming the rage, and examples may be inspected by the curious; while another item of shop-fittings in the shape of nickel-plated balance-scales should be examined by those who wish accuracy and delicacy without the high price that balance-makers expect. The balance-scales which our representative saw are of simple construction, extremely delicate, and one would have to set about it deliberately to get them out of order.

ECLIPSE MEDICAL BATTERY.

MESSRS. F. A. DARTON & Co., of St. John Street, E.C., are introducing a new medical battery with two dry cells which deserves the attention of the trade. The principal feature of the battery is the dry-cells, which are of a novel composition, and individually made and tested, so that as long as the chemical elements remain unexhausted in them (they last for about eight months when the battery is used for a



short time daily), a current of electricity is ensured. The cells are mounted in an oak case in such a way that one or both of them may be used, and the battery is fitted with handles, brushes, and all appliances for electro-medical treatment. It is always ready for use, which virtue, with its compact style and great power, should make the battery esteemed by physicians under whose attention it may be brought.

"YOUNG man," said the evangelist, "do you realise that when you retire at night you may be called before morning dawns?" "I hope so; I'm a young doctor, and I need encouragement of some kind."

AMERICAN PHARMACEUTICAL ASSOCIATION.

THE report which we have received from the other side indicates that this year's meeting of the A.P.A. (as it is familiarly called there) has been quite successful. There is much life in it in spite of the brisk time the members had in Chicago last year. The meeting was the forty-second in the history of the Association, the meeting-place Ashville, New Colorado, and the headquarters Battery Park Hotel, a highly elegant house. There Mayor T. W. Patten, the local chairman, officiated in the opening welcome on Monday, September 3, at 3 P.M. Professor E. L. Patch, of Boston, was the President, and for the first time Professor J. P. Remington, of Philadelphia, acted as Permanent Secretary. There was a reception in the evening; on Tuesday morning general business was discussed, in the afternoon commercial matters, and on Wednesday morning scientific papers came along, a percentage of the three hundred members present taking part in this section. There were about forty papers contributed, but only some of them were read during Wednesday and Thursday. We give abstracts of a few.

COD-LIVER OIL.

There were three papers on this, the "active principles" being the inciting cause of all of them. Messrs. J. O. Schlotterbeck, F. E. Stewart, and Henry A. Stearns were the contributors. The last-named gentleman replied to the question, "Do the so-called elegant preparations of cod-liver oil, from which the oil has been removed, possess any therapeutic value?" Mr. Stearns answered that he had conversed with over two thousand physicians on the subject, and 98 per cent. of them stated that cod-liver oil produced digestive disturbance in from 60 to 80 per cent. of the cases that required its use. The majority said that the oil, though more difficult of digestion than some other fats, does, however, build up patients in strength and weight more rapidly than any other fat. During a six-weeks' course of treatment with a 50-per-cent. cod-liver oil emulsion (tablespoonful three times a day), patients often increase in weight from 5 to 12, and sometimes as high as 20 lbs., though not consuming during that period of time quite 2 pints (32 oz.) of pure oil. Mr. Stearns then proceeded to show that this great ratio of increase is due to the alkaloids which cod-liver oil contains, and he was prepared to submit clinical studies by the hundred to show increase in patients' weight of from 3 to 30 lbs. by a course of treatment with a solution of the active principles of cod-liver oil in wine.

We have not received the other papers on this subject.

SPIRIT OF NITROUS ETHER.

Mr. Charles M. Ford, of Denver, put in a criticism of the U.S.P. process, which is a modification of that rediscovered by Dunstan—viz., action of sodium nitrite and sulphuric acid upon alcohol, but not at a low temperature. Mr. Ford's experiments would not go well at all, and in looking closely into the matter he found that in the U.S.P. formula there are a number of errors and omissions which are difficult to account for except upon the grounds of carelessness. Thus alcohol 550 c.c. is named instead of 550 grammes, and the washing directed is quite unnecessary. He suggests the following modification of the formula:—

	Grammes
Sodium nitrite	136
Sulphuric acid, U.S.P. ...	104
Alcohol, sp. gr. .816 .. .	103
Water	1,000

Dissolve the sodium nitrite in 600 grammes (or c.c.) of the water, and mix with the alcohol; cool the mixture to 10° C. and pour into a half-gallon retort placed in a bath of the same temperature; the sulphuric acid is mixed with the remainder of the water (400 c.c.), the mixture cooled to 10° C. and cautiously and gradually added to the mixture in the retort. Distillation begins at once and continues sufficiently active throughout. By the time the operation has closed the temperature of the mixture in the retort rises to 25° C.

Mr. Ford facetiously commented on some of the tests. Each succeeding edition of the U.S.P. informs us, said he, that sweet spirit of nitro should not effervesce when a crystal of bicarbonate of potassium is dropped into it. That

is as true as Gospel, but if it is a test for acidity, as is commonly supposed, it is ridiculous. If the spirit were as acid as vinegar, it would fail to respond to such a test. It requires the presence of water to decompose the bicarbonate.

TARAXACUM ROOT.

Professor L. E. Sayre has continued his research on the active principles of this root, especially in relation to the time and place of collection. He finds that root grown in dry upland is distinctly better than that from moist lowland. Endeavouring to find what effect drying at 50° C. has upon the root, Prof. Sayre found that there is a decrease of about a third in the amount of resin, while the taraxacin remains the same, but his paper does not say whether both are calculated on the water-free material or not. However, he declines to dogmatise on either of the points mentioned. It seems that the precipitate formed by the addition of alcohol to a strong aqueous preparation of taraxacum is chiefly inulin.

DATURA STRAMONIUM.

Dr. Alfred R. L. Dohme has made experiments with the fresh plant, and finds that the stems of *Datura Stramonium* contain more alkaloid than the leaves (by titration 0.3 to 0.46 as compared with 0.21 to 0.27); that the plant gathered in June contains less alkaloid than that gathered in July and August (about half); and that Keller's method extracts more alkaloid from the drug than Dragendorff's method.

The same author replying to an A.P.A. query—

WHAT IS THE QUALITY OF THE REDUCED IRON
DISPENSED BY PHARMACISTS?

—reported that, so far as Baltimore is concerned, it is bad, only one sample being free from ferrous sulphide, but the percentage of uncombined iron was passable in four samples. Dr. Dohme also contributed a note on

TWO KINDS OF IPECAC ROOT.

Last year he showed that the thick annulated root commonly called "fancy root" (? Carthagenia) does not always contain the most alkaloid, and is not always the most valuable. Further comparison of it with "wiry root" corroborates this. Samples of the "fancy" yielded 1.29 to 1.44 per cent. of alkaloids by titration with volumetric acid solution; "wiry" from 1.69 to 2.03 per cent. Cortex of "fancy" root yielded 1.68 per cent., and that of "wiry" root yielded 3.15 per cent. of alkaloids by titration; the woody portion of "fancy" root 0.17 per cent., and that of "wiry" root 0.50 per cent. of alkaloids. Keller's method was used. It consists in treating the drug directly with ether and chloroform, usually three parts of ether to one of chloroform by weight, shaking well for five minutes, then adding sufficient ammonia-water and shaking well for half-an-hour. Then some water is added to clog the drug-powder together, and an aliquot part is poured off and at once treated with dilute acid in a separatory funnel. The acid solution is made alkaline with ammonia and extracted with ether-chloroform, the chloroform usually in excess to facilitate separation. The extracting-fluid is let into a small flask, and the ether-chloroform distilled off on a water-bath. By adding a little ether and alcohol the last portions of chloroform can be successfully removed on the water-bath. The residue, consisting of the alkaloids usually in a good state of purity, is then titrated with acid and alkali, using brazil-wood or litmus as an indicator.

THE USE OF ISOBUTYLIC ALCOHOL FOR THE DETECTION
OF MORPHINE AND CODEINE.

On this subject, Mr. J. B. Nagelvoort, the author, states that amyl alcohol used to be considered valuable for the detection of morphine, but its offensive odour renders it objectionable, and he proposes the use of isobutyl alcohol, a member of the same series of higher alcohols, which is much more pleasant to handle.

If the liquid is a thick preparation, such as a cough-syrup, the author advocates dialysis of the fluid, first with subsequent evaporation. When sufficiently evaporated, transfer to a separator and shake out in the ordinary way by the aid of acidulated water and the isobutyl alcohol. Evaporate off the alcohol and apply the usual tests to the residue.

Add 2 drops of conc. H_2SO_4 ; warm one half-hour on the water-bath; add a drop of HNO_3 . Violet and blood-red colour reactions show the presence of morphine. If the mixture discolours no morphine is present.

Dilute Fe_2Cl_6 solution gives a blue colour if morphine be present.

The molybdate and titanio-acid tests are valuable as confirmatory evidence. The process is adapted also to quantitative estimation.

Codeine may be similarly isolated by the use of the alcohol and the usual tests applied to the residue.

Benezech stated (*Pharm. Zeitung* for 1892, p. 545) that malva-flowers contain a colouring-matter which turns green with codeine, while this colouring-matter is not affected by morphine. The author has verified this statement and found that it makes a useful addition to the list of reactions.

QUANTITATIVE DETERMINATION OF SOME SUBSTANCES IN AQUEOUS SOLUTION BY MEANS OF THE REFRACTOMETER.

Mr. W. F. Edwards described the use of a Pulfrich refractometer for the determination of the refractive index and strength of certain solutions, sodium light being the illuminating agent. Hydrochloric acid, solutions of ammonia, nitric acid, sulphuric acid, acetic acid, and alcohol were determined in considerable number and the results tabulated, the strength of the acids being checked by titration with alkali. From the index of refraction may be determined the per-cent. strength of the solution by the use of the refractometer in the following way:—Assume a solution—say, of nitric acid—containing 65 per cent. acid. Take the reading of the refractometer as usual, then add to it from one-fifth to one volume of water, and take the reading again at the same temperature.

If one-fifth volume of water is added, then the diluted solution will contain $65(13.99)/15.99 = 56.8$ per cent., assuming that 10 c.c. were diluted, and should give an index of refraction corresponding to that for 56.8 per cent. in the author's tables if the temperature is the same. If one-half volume of water is added, then we would have a solution containing $65(13.99)/18.99 = 47.4$ per cent. acid, and should give an index of refraction corresponding to that for the same per cent. in the table.

ALLIGATION IN PHARMACEUTICAL CALCULATIONS—ITS USEFULNESS AND LIMITATIONS.

Dr. T. D. Reed pointed out that this kind of calculation arises from time to time in chemical and pharmaceutical work. The arithmetical principle is ancient, but the introduction of standardised drugs has caused some attention to be given to the subject.

The possibilities in application of alligation seem not to have been fully recognised in some quarters, for the author found in an examination-paper recently the following problem:—“Required 90 oz. of pulv. scammon., that will assay 62.5 per cent. resin, by the admixture of powders assaying, respectively, 75 per cent., 70 per cent., 53 per cent.; how much of each will be required?”

Now this question permits of three answers in whole ounces, thus:—18 oz. 75 per cent., 27 oz. 70 per cent., 45 oz. 53 per cent.; 1 oz., 49 oz., 40 oz.; and 35 oz., 5 oz., 50 oz.—and taking any quantity for any one strength, a series of fractional quantities is obtainable, so that the answers are unlimited. Alligation will give an answer in fractional quantities, and that is all it will do.

The mistake here made, he thought, is in overlooking the fact that, for mixtures of more than two strengths, there cannot be a fixed answer.

Another mistake is the use of the principle to make mixtures of a new specific gravity from liquids of given specific gravities. Nearly all solutions of different gravities, when mixed, vary in volume; some considerably. Dilutions to a new percentage by weight may, however, be calculated.

To deal with more than two strengths, it can only be said that alligation will furnish an answer, and this will suffice in many cases. If there are conditions, such as whole ounces, and other limitations, recourse must be had to algebra, of which, however, only an elementary knowledge will be required.

Trade Notes.

If there are still any bottles of Moonseed Bitters about we are informed that Messrs. May, Roberts & Co., of Clerkenwell Road, are ready to buy them.

JEYES' SANITARY COMPOUNDS COMPANY (LIMITED) have scored their sixty-second award, the latest being from the Yarmouth and East of England General Trades and Industrial Exhibition.

THE CHEMISTS' AERATED AND MINERAL WATERS ASSOCIATION (LIMITED) have published a pamphlet containing three dozen complimentary letters from South London chemists on the virtues of the aerated waters supplied from the Raven Springs at Mitcham.

The official notification of the awards at Antwerp has not yet been published, but from special information we learn that grand prizes (diplomas d'honneur) have been awarded to the Apollinaris Company, Burroughs, Wellcome & Co., Spratts' Patent, and the Pharmacie Centrale de France.

Business Changes.

MR. P. A. WOOLGAR, 31 Snow Hill, has been appointed London agent for the Scottish Sugar-coated Pill Company, Anderston Apothecaries' Hall, Glasgow.

MR. CHARLES F. BANCROFT has purchased the business at Kineton carried on for the past seven years by Mr. Richard Hawkes, pharmaceutical chemist, of Stratford-on-Avon.

MR. VERNON, of Penge Pharmacy, in consequence of the expiration of his lease, has taken a shop at the corner opposite his old premises, and has fitted it in an elaborate manner.

MR. SIDNEY DAVIES, pharmaceutical chemist (from Cooper & Co., Kensington), has taken over the business of Messrs. Moore & Co., 45 Craven Road, Paddington, under which name the business will be continued.

MR. J. A. E. BREEZE has acquired the business of the late Mr. H. E. Field, 70 Oxtou Road, Birkenhead, in whose hands it has been for upwards of a quarter of a century. Mr. Breeze intends to trade under the old name of H. E. Field.

MR. S. HENRY LONGMAN, of the Guildhall Pharmacy, Rochester, has, in consequence of ill-health, disposed of his business to Mr. F. J. Muskett, of Attleborough, Norfolk, who was for some time assistant with Mr. Chautler, Newport Pagnell, Bucks.

Marriages.

EBBAGE—PIPE.—On September 18, at St. Lawrence Church, South Cove, by the Rev. G. M. Norris, Henry Edward Ebbage, chemist and druggist, of Southend-on-Sea, to Bessie Ellen, eldest daughter of Mr. Benjamin Pipe, of South Cove, Suffolk.

POND—MITCHELL.—On September 15, at St. Saviour's Church, Brixton Hill, by the Rev. E. J. Wolfe, B.A., William Ernest, second son of Mr. B. C. Pond, chemist and druggist, of 102 Brixton Hill, to Jessie Huetta, youngest daughter of Mr. Hugh Mitchell, 78 Solon Road, Brixton, S.W.

Deaths.

DUNSMORE.—On August 14, James Dunsmore, chemist and druggist, Garliestown. Aged 82.

HUTTON.—On September 6, Emanuel Hutton, chemist and druggist, Leeds. Aged 66.

PICKERING.—On September 6, Atkinson Pickering, pharmaceutical chemist, Hull. Aged 74.

THURLOW.—At Ixworth, Suffolk, on September 16, Henry Thurlow, chemist and druggist, suddenly.

Legal Report.

EXHAUSTED GINGER OR SPENT GINGER.

AT the Cardiff Police Court on Wednesday, Jacob Walters, grocer, Castle Road, was charged, under the Sale of Food and Drugs Act, with having in his possession a certain article of food known as ground ginger, from which a portion thereof had been abstracted so as to affect injuriously its quality, and also with having unlawfully sold such article so altered without making disclosure to the customer of such alteration. There were also two summonses against the assistant, George Downman, but, as Mr. Walters took all responsibility for the sale of the article, these were withdrawn.

Mr. F. C. Lloyd, deputy town clerk, prosecuted; and Mr. George David, legal adviser to the Cardiff Grocers' Association, appeared for the defendant.

Mr. Lloyd said that unless the defendant had a warranty, the fact that he was an innocent vendor of the ginger would not affect his position. If the Bench found that there had been an abstraction from the ginger, they would be bound to convict. The fact that the defendant did not make the abstraction himself would be no answer to the charge. From this ground ginger there had been abstracted a matter which was used for the manufacture of ginger-beer. The adulteration or fraud of which they complained had only come recently before the authorities. There had, it seems, sprung up a practice of extracting the flavouring elements from the ginger-root and using them for the manufacture of ginger-beer. Formerly the ginger residue from which these flavouring-materials had been abstracted was thrown away, but recently it had been ground up and added to genuine ground ginger.

Phillip David, assistant inspector, proved the purchase of $\frac{1}{2}$ lb. of ground ginger at defendant's shop on August 16. The assistant asked what quality he would have, observing that he had ginger at 1s. 2d. and at 1s. per lb. Witness asked for that at 1s.

Mr. T. Hughes, public analyst, said he had analysed the ginger, and came to the conclusion that there was an addition to it of 25 per cent. of exhausted ginger. On his certificate he made the following observations:—"Spent or exhausted ginger is ginger from which the essence and flavouring matters have been more or less abstracted by the treatment of weak spirit, the quality of the article being thereby reduced." Ground and powdered ginger was, in his opinion, an inferior article to genuine ginger.

In cross-examination, witness said that spent ginger and exhausted ginger were practically the same thing.

Mr. David: Is not spent ginger that from which the essence has been absolutely abstracted for the purpose of making ginger-beer?—Spent ginger is a ginger from which the essence has been abstracted more or less.

Mr. David: And is not exhausted ginger that from which the essence has evaporated?—Oh, no; not to my mind.

Mr. David: By what process do you arrive at the conclusion that the essence has been actually abstracted from this ginger?—By the deficiency of certain constituents in the ginger.

Mr. David: What are the constituents which are abstracted?—A certain amount of resin and aromatic principles.

Mr. David: What particular resins?—I cannot say. It is not thoroughly known.

Mr. David: You say it is not known to science what the resins are. How, then, can you say that a certain amount of resin has been abstracted?—By the deficiency in the various matters abstracted.

Mr. David: But if you cannot say what the proper proportions are, is it not equally impossible for you to say what the deficiency is?—We can infer it.

The Magistrates' Clerk: Can you give the quantity of resin that ought to be present in the ginger?—To make the analyses that is not to my mind necessary.

The Magistrates' Clerk: That is not the question. Can you tell what quantity of resin there should be?—It varies from 6 to 10 per cent.

Mr. Bird (a Magistrate): In your analyses have you yet discovered a minimum quantity of resin in genuine ginger?—We don't extract the resin from the ginger to make the analysis.

Mr. David: Then you have not extracted the resin in this particular analysis?—No.

Mr. David: Then you cannot possibly say whether there is anything lacking?—Oh, yes; I come to that conclusion in another way. It can be inferred.

Mr. David: You say that resin was not the only constituent of ginger, but that there were also certain aromatic principles. What are they?—They are not well known and cannot be separated.

Mr. David: So that the prosecution is asking the Court to convict the defendant of an offence when the constituent parts of ginger are not known to science?—Oh, no; the exhaustion of the ginger can be inferred from the analyses because the exhaustion robs the ginger of certain constituents, and from the deficiency of these constituents we can infer spent ginger.

The Magistrates' Clerk: But you must say what the constituents are before you can say what has been taken from them.—If you ask me to give the names of every constituent I cannot do it.

The Magistrates' Clerk: It seems to me that you ought to be able to do it.—Various flavouring-matters are abstracted by a solution in the spirit, and I can infer the presence of spent ginger from that analysis.

Mr. David: What are the properties of ginger?—They depend upon the flavour of various resins and volatile oils.

Mr. Bird: Is it possible for the volatile oil to escape before the spirit is added?—No, I think not; not if it is kept in the cold in the ordinary way.

Mr. David: Look at that packet. Is not that some of the oil showing through the paper?—I could not say whether it is oil or wet. I don't deny that it is oil, but I cannot say that it is.

Mr. Bird: If this ginger were kept a very long time, would it not be possible for the volatile oil in it to evaporate?—Not if kept in the ordinary way. The oil is not that volatile.

Mr. David: If the ginger were kept in a close shop where the temperature was fairly high all the year round, would not the oil evaporate?—Not to any appreciable extent. I cannot say that minute portions would not evaporate.

Mr. David: Now, coming again to the constituents of this ginger, I suppose you can say what the maximum percentage of these various constituents are?—We depend upon the amount of the soluble ash in the ginger, on the amount of matter abstracted by cold water, and on the amount of alkaloids. From the deficiency of these, we can tell whether spent ginger has been added, because these are the most definite bodies.

Mr. David: But how do you know that the analyses of other gingers, from which you have derived your experience, have been analyses of genuine gingers?—I have taken the root.

Mr. David: Can you tell me of any Government return in which ginger is included among food imports?—I cannot.

Mr. Bird: What is the purpose of that question?

Mr. David: I am going to suggest that ground ginger is not an article of food, and therefore does not come under the Act.

Mr. Bird: It is taken by people.

Mr. David: Yes; but being mixed with anything else does not make it an article of food.

Mr. Lloyd said there was an authority on that point.

In re-examination by Mr. Lloyd, witness said it was impossible to say the precise amount of adulteration in this ginger, but he inferred, from his analysis, that there was at least 25 per cent.

Mr. Lloyd said that was his case.

Mr. David submitted that no case had been made out. He had shown conclusively from the evidence of the analyst that there was no standard by which this ginger could be analysed. Mr. Hughes had admitted that it was not known what the proper constituents of ginger were, and before they could say that the defendant was selling an article which was adulterated the prosecution must show what the constituent parts of that article were.

Mr. Rees Jones (a Magistrate): Mr. Hughes has found

in his analysis of this ginger the absence of what he knows should exist if the ginger were genuine.

Mr. David said that was putting it stronger than what the witness said. He could not say what proportions of resin were absent.

Mr. Bird (to witness): Did you find more than one kind of resin?

Witness: There are several kinds, but it is impossible to say what they are.

Mr. David said the prosecution alleged that a certain amount of spent ginger had been added. But that was not the charge. The charge was that something had been abstracted from the ginger which ought to have been there, and before the prosecution could say that anything had been abstracted they must be in a position to prove what ought to have been there.

Mr. Bird: That is what the witness has done.

Mr. David: I beg pardon. That is what he says he cannot do.

The Magistrates' Clerk: He says there is no standard.

Mr. David said cases like this were extremely hard on retail grocers. This ginger was purchased by the defendant from leading merchants at 11d. per lb., and sold at 1s. There was very little sale for ginger by grocers. Defendant had this in stock for over twelve months, and, if there was anything lacking in it, it had been caused by evaporation. The samples produced in Court showed that evaporation was going on to a certain extent. He suggested to the Bench that if there had been any loss in this ginger it had been caused by evaporation, and therefore no offence had been committed under the Act. He submitted further that ginger was not an article of food, and in support of that contention quoted the case of *James v. Jones* heard in the High Court. In that case Mr. Justice Hawkins held that baking-powder was not an article of food. It might be asked what was food. It was that which people took for the sustenance of the body.

The Magistrates' Clerk: To sustain life?

Mr. David: Yes; but it could not be suggested that people would take ground ginger to sustain life. It might be added to foods to flavour them, but it did not add to the sustaining properties of food.

The Magistrate's Clerk said he understood that Mr. Lloyd had a case to show that it was an article of food.

Mr. Lloyd said what he had to do was to satisfy the Bench that the inspector had not got what he asked for. The ginger he got was not genuine ginger.

The Magistrates' Clerk: But first of all you have to prove that it is an article of food.

Mr. Lloyd said he was coming to that. If he satisfied the Bench that the inspector did not get what he asked for, that was an offence against the law, whether the adulteration had come about by the course of Nature or otherwise. As to Mr. David's contention that ginger was not an article of food, he relied on the case already quoted, *James v. Jones*, in which Mr. Justice Hawkins stated that mustard, pepper, and salt were articles of food.

The Bench having consulted,

Mr. Rees Jones said they thought this was a very proper case to be investigated, but it was shrouded in so much obscurity that they did not feel justified in coming to a decision. They, therefore, gave the defendant the benefit of the difficulties that presented themselves to their minds, and dismissed the summons.

Mr. Lloyd said in face of such a decision, so contrary to what had been decided in other parts of the country he must ask their Worships to state a case.

The Bench agreed to do this.

DEFICIENT TINCTURE OF RHUBARB.

At the Saddleworth Police Court, on September 12, Albert Ashworth, Greenfield, was summoned under the Sale of Food and Drugs Act for selling tincture of rhubarb not of the nature, &c., demanded. Mr. A. L. Bridge, who until recently has acted as the County Council analyst, prosecuted, and Mr. Innes, of Stalybridge, conducted the defence. Mr. Bridge said that on June 22 he went to defendant's shop and purchased 2 oz. of tincture of rhubarb, for which he paid 6d. He then told defendant it was for analysis, and the tincture was divided into three parts in the usual way.

One part was sent to Mr. Allen, the county analyst, who had since sent the following certificate:—"I am of opinion that the sample contained the parts as under: Extractive matter, 2.60; absolute alcohol, 24.19; water, 73.21. The sample contained only one-half the amount of extractive matter natural to genuine tincture of rhubarb of good quality, and but little more than one-half the amount of alcohol which is prescribed by the British Pharmacopœia to be used in its preparation; in addition to this the sample was destitute of saffron, which is directed by the British Pharmacopœia to be used in the preparation of tincture of rhubarb in the proportion of $\frac{1}{4}$ oz. to 1 pint." Mr. Innes questioned Mr. Bridge as to whether the spirit and the saffron might not have disappeared through the bottle being repeatedly uncorked and exposed to the light; and Mr. Bridge contended that no material difference would thus have been made to the tincture. Mr. Innes said he had authority for saying that Mr. Bridge was wrong. Mr. Innes had three lines of defence. In the first place, he contended that the summons was bad, inasmuch as it had not been taken out within twenty-eight days; in the second, the defendant was exonerated, because on the bottle purchased from the wholesale dealer there were the words, "Warranted genuine"; and, in the third, he maintained that the spirit and the saffron had evaporated, and the defendant was not liable. The bottle of tincture of rhubarb was purchased ten years and a half ago, and they could not be surprised if a change in its composition had taken place. As regarded the saffron, it was of small account if it had disappeared, as it was only used for colouring purposes. Mr. Bridge said the saffron had medicinal qualities. When the Magistrates, on the advice of their clerk, decided against him on the first two points, Mr. Innes called defendant and his wife to prove that the tincture was purchased over ten years ago and had never had water added to it. A fine of 5s., including costs, was imposed. The Magistrates considered that the defendant had broken the law unknowingly.

POOR BISMUTH LOZENGES, SEIDLITZ POWDERS, AND TINCTURES.

At the Skipton Police Court on Saturday last, Arthur Harrison, an assistant in the employ of Mr. A. E. Crumey, chemist, of Skipton, was fined 2l., and 1l. 2s. 9d. costs, for selling 2 oz. of bismuth lozenges, deficient in weight and in bismuth. The same defendant was also fined 2l., and 1l. 3s. 2d. costs for selling a box of Seidlitz powders, which proved to be also deficient in weight.

At the same Court Jane Alderson, was fined 2l., and 1l. 2s. 9d. costs, for selling 3 oz. of paregoric, which was destitute of opium. The same defendant was also fined 2l., and 1l. 2s. 9d. costs, for selling 3 oz. of tincture of rhubarb, which was deficient in extractive matters, and also destitute of saffron, it being alleged that the latter was an important ingredient. The summonses in the various cases were taken out at the instance of Arthur Randerson, the inspector for the West Riding County Council, under the Food and Drugs Act, and the samples were analysed, and reported upon by Mr. A. H. Allen, the West Riding Analyst.

RIVAL COCOA TRADE-MARKS.

MESSRS DUNN & HEWITT, of 136 Pentonville Road, N., the proprietors of a trade-mark for cocoa, consisting of a device representing a Dutch waitress, opposed an application lodged by Mr. Reginald W. Barker, of the British Trade Protection Office, Monument Chambers, E.C., on behalf of Messrs. W. S. Shuttleworth & Co., of 34 Fechurch Street, E.C., for the registration of a cocoa-label bearing a device representing a Queen in conjunction with the word "Cleopatra." The Registrar of Trade-marks has recently allowed registration to Messrs. Shuttleworth's mark, stating in his decision that he could see no such similarity in the device appearing on their mark and the opponents' device as would justify him in thinking that the mark, if registered, would be calculated to deceive.

A BRITISH AND FOREIGN OPTICAL COMPANY'S CASE.

ON Thursday the case of *Baron v. Marston* came before his Honour Judge Stonor in the Marylebone County Court.

which was the adjourned hearing of an action brought on a bill of exchange; and Mr. De Mortimer-McIntosh, defendant's solicitor, said that was the fourth time the case had been in his Honour's Court. He applied for the costs, as he had the previous day received notice of discontinuance from the other side. It had been adjourned till that day for him to call witnesses to prove the case. The only question left for his Honour to decide was as to costs. He asked for costs for all the adjournments and that application, also for expert and other evidence. He submitted that the present action was the action of the British and Foreign Optical Company, and he was to prove that the spectacles were all rubbish. For that purpose he had witnesses from Messrs. Negretti & Zambra and other houses, also two witnesses from a bank. He asked for costs as if the action was brought by the company, and not merely as an action on a bill of exchange. He could prove they were a perfect swindle.

Mr. Raw said, on behalf of the holder (plaintiff) of the bill of exchange, the action was not withdrawn for the reasons stated—"swindle" or "fraud." He submitted that defendant was only entitled to the usual costs and out-of-pocket expenses. The Deputy-Judge adjourned the case because the question of fraud was raised by the other side that a special defence might be put in.

His Honour supposed the bill was proved. It was quite sufficient to produce the bill.

After further discussion, his Honour said he should allow the costs of solicitor and the witnesses then present, including two expert witnesses.

Mr. Raw: The witnesses are not here.

This was admitted, only one from the bank being present, so his Honour said he should only allow for the witness present.

Judgment was therefore entered for the defendant, with costs of solicitor, defendant, and one witness.

Bankruptcy Report.

Re W. A. CARTWRIGHT St. George's Road, Bolton, Chemist and Druggist.

AT Bolton Bankruptcy Court, on September 12, before his Honour Judge Jones. Mr. Fielding, solicitor, applied for the discharge of this bankrupt. Mr. Fielding informed the Judge that applicant passed his pharmaceutical examination in 1873, and, after being in a situation for three years, commenced business for himself in 1876 at Sharples. After a series of misfortunes and money losses he called a meeting of his creditors together and made an offer of 6s. 8d. in the pound. One of the creditors, to whom 16l. was owing. However, instead of being bound by the decision of the meeting, issued a writ for the amount and this was paid him. The other creditors were dissatisfied at this, and declined to accept the composition. The result was that the debtor filed his petition in bankruptcy. His liabilities amounted to 1,823l., and his assets realised 752l., leaving a deficiency of 1,071l. Therefore there was an estate which would have paid over 7s in the pound, but the nett result was that the creditors only got 2s. 6d. in the pound. This was not the fault of his client. Mr. Cartwright had since been in the employ of one tradesman for twelve years, and he (Mr. Fielding) hoped his Honour would see his way to liberate him. His Honour said that the reasons given were sufficient to justify him in granting the discharge immediately.

Re JOSIAH WARD, 2 Raglan Street, Lowestoft, Chemist and Druggist.

THE public examination of the above-named debtor came on for hearing at the Yarmouth Bankruptcy Court on Tuesday last, before Mr. Registrar Worlledge.

The statement of affairs filed by the debtor disclosed unsecured liabilities amounting to 528l., and the assets were estimated to produce 101l. 12s., thus leaving a deficiency of 427l. 18s. 10d. Replying to questions put by the Official Receiver, the debtor said he commenced business in April, 1892, previous to which he was manager to a Mr. Wright.

He had no capital at the time, but he borrowed 35l. from a friend named Stannard. He took a shop to which there was very little business attached. Until April, 1893, he kept a partial account of his takings. For two or three years his average takings amounted to between 25l. and 50l. per week, of which a little more than half was in respect of a tobacco business attached to the shop. He thought he had made a loss on the tobacco portion of the business, but the other portion was not very profitable. The second year's business was better than the first, but after November, 1893, it went down. He accounted for his present position by working the business at too small a percentage of profit. However, his creditors had to stand the risk of his trading. Much of his trading in patent medicines was absolutely profitless. No doubt he had lost money in that way from the start. In July last he found himself in such embarrassed circumstances that he called his creditors together. The largest creditor then advised bankruptcy, and, as witness could not make a substantial or guaranteed offer, he decided to file his petition. During the past twelve months he had been sued by several creditors for small amounts, and an execution was levied in August; but he managed to pay it out. His mother was partly dependent upon him. He had applied to the Carlton Bank for a loan. The application was made whilst he was being pressed by creditors, and some of the statements he then made were untrue, and the form he filled up gave false information. He now knew that when he filled up the form he had not enough to pay his creditors in full.

The debtor was finally allowed to pass his examination.

Gazette.

PARTNERSHIPS DISSOLVED.

Dunnill, G. H., and Pater, J. B., Sheffield, chemists and druggists, under the style of Dunnill & Pater.

Spencer, E. R., and Wyatt, W. T., Albion Road and Manor Road, Stoke Newington, N., surgeons, under the style of Spencer & Wyatt.

Todd, R. D., and Oakden, R. H., Birmingham, makers of stoppers for bottles and jars, under the style of the Birmingham Stopper Company.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Dewhurst, Thomas Blythe, Trawdon, near Colne, mineral-water manufacturer.

Goddard, James, Hooley Hill, Lancashire, mineral-water and botanic-beer manufacturer.

ADJUDICATIONS.

Baker, William, Leicester, horse-dealer and veterinary surgeon.

Collingwood, Charles, Halifax, brush-manufacturer.

Kendall, William Edward Vaughan (trading as Waldron & Co.), Worcester, sauce-manufacturer.

Lambert, Henry, Brighton and Hurst Wickham. Hurstpierpoint, surgeon-dentist.

Deed of Arrangement.

Fresson, Lewis Amable, 2 Rose Street, Northwood, and 53 Hope Street, Hanley, dealer in drugs, patent medicines, and chemists' sundries. Trustee, Alex. Wayte, Albion Street, Hanley, accountant. Dated September 11; filed September 18. Liabilities unsecured, 2957l. 16s. 5d.; estimated net assets, 92l. The following are scheduled as creditors:—

	£	s.	d.
Beatson & Co., Rotherham	15	0	0
Draper, W. B., & Co., Nottingham	15	0	0
Fresson, L. F., Stevenage	20	0	0
Gibbs, Cuxson & Co., Wellesbury	15	0	0
Guest, Thomas, Manchester	10	0	0
Hirst, Brooke, & Hirst (Limited), Leeds	11	0	0
Hockin, Wilson & Co., London	13	0	0
Hodgkinson, Treacher & Clarke, London	41	0	0
Kemp, W., & Son, Hornsea	13	0	0
Lloyd's Banking Co. (Limited), Hanley	10	0	0
Oldfield, Pattinson & Co., Manchester	40	0	0
Storey, Smithson & Co., Hull	15	0	0

(And creditors under 10l.)

New Companies and Company News.

PRICE'S PATENT CANDLE COMPANY have issued a statement of profit-and-loss account showing a manufacturing profit of 26,147*l.* 2*s.* 1*d.* for the six months to June 30 last. A dividend of 10*s.* per share is proposed, which will leave 14,862*l.* to be carried forward.

ASHCROFT & CO. (LIMITED).—Capital 3,000*l.*, in 10*l.* shares (of which 100 are preference). Objects: To acquire and carry on the business of manufacturers of and dealers in varnish, paints, colours, and paperhangings, and general drysalts, now carried on under the firm of "J. H. Ashcroft & Co.," at 52 Bridge Street, Manchester. Registered without articles of association. Registered office, 52 Bridge Street, Manchester.

NORTH STAFFORDSHIRE DRUG SUPPLY ASSOCIATION (LIMITED).—Capital 100*l.*, in 1*l.* shares. Objects: To carry on the business of chemists, druggist, drysalts, oil and colourmen, dealers in patent medicines, and proprietary articles, &c. The first subscribers are:—George Hughes, Price Street, Burslem, bank clerk, 29 shares; S. Mollart, Mow Cop, grocer, 29 shares; J. R. Whitehurst, Harrishead, clerk, 10 shares; J. A. Mollart, Mow Cop, teacher, 10 shares; Mrs. M. E. Mollart, Newcastle Street, Burslem, 10 shares; C. Farmer, Parker Street, Burslem, clerk, 10 shares; A. V. Mollart, Newcastle Street, Burslem, chemist, 2 shares. Registered without articles of association. Office, 152 Newcastle Street, Burslem.

R. & J. BECK (LIMITED).—Capital 30,000*l.*, in 10*l.* shares. Objects: To acquire by means of an agreement to be made with Emma E. Beck and Conrad Beck, the business carried on at Cornhill, London, by the firm of R. & J. Beck, and to carry on the business of wholesale and retail opticians, and microscope and photographic apparatus makers. The first subscribers (each with one share) are:—T. Beck, Principal M.A.O. College, Aligach, India; Miss Emma J. Beck, 233 Albion Road, Stoke Newington, N.; Mrs. F. G. Hickson, 6 Moira Street, Calcutta, India; Miss H. Beck, Miss A. Beck, Horace C. Beck, optician, all of 233 Albion Road, Stoke Newington, N.; Conrad Beck, 63 Cornhill, E.C., optician. The management of the business is vested in Conrad Beck as sole director. Remuneration, as the company may decide.

"MASSAGE" BALL COMPANY (LIMITED).—Capital 20,000*l.*, in 1*l.* shares. Objects: To purchase the patent rights of William T. Cornick for "improvements in instruments used for the purpose of massage," to enter into an agreement with William T. Cornick, and to carry on the business of engineers, merchants, bankers, india-rubber-merchants and manufacturers, metal-merchants, metal-brokers, ironfounders, metallurgists, electrical engineers, &c. The first subscribers (who take one share each) are:—W. F. Shaw, 8 Mosshall Grove, Finchley, gentleman; L. Brown, Delta House, Leytonstone, gentleman; H. Stollery, 7 Station Road, Kensal Rise, insurance agent; J. L. McKim, Margate, civil engineer; William J. Smallhorne, 19 King's Arms Yard, E.C., gentleman; William P. Shepherd, 80 Rucklidge Avenue, Harlesden Green, N.W., clerk; F. C. A. Neill, 9 Regina Road, Finsbury Park, N., clerk. Registered without articles of association.

JAMES HILTON & CO. (LIMITED).—Capital 20,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by James Hilton at the Pendleton Paint and Colour Mills, Pendleton, Lancs., as "James Hilton & Co.," to enter into an agreement for the purpose, and to carry on the business of white lead, paint, colour, and varnish-manufacturers and dealers, oil-merchants, drysalts, ship chandlers, tin-merchants, metal-workers, coopers, box-makers, &c. The first subscribers (who take one share each) are:—J. Hilton, Pendleton Paint and Colour Mills, John Street, Pendleton, manufacturer; William Jones, 13 Scales Street, Pendleton, accountant; George P. Vardon, 101 George Street, Higher Broughton, commercial-traveller; T. Balshaw, Rivershill, Ashton-on-Mersey, metal-merchant; R. Yates, 14 Cross Street, Manchester, engineer; T. Knowles, 16 Barton House, Deansgate, Manchester, engineer; E. J. Berry, 191A Chapel Street, Salford, ironmonger. The first directors are to be

nominated by the subscribers. Qualification, as the company may fix. The services of two of the employés of the firm are to be retained by the company.

GROSS, SHERWOOD AND HEALD (LIMITED).—Capital 50,000*l.*, in 5*l.* shares (of which 6,000 are 6*l.* per cent. cumulative preference). Objects: To acquire the business carried on as "Gross, Sherwood and Heald" at the St. George's Oil Refinery, Trafalgar Bridge, Old Kent Road, London, S.E., to enter into an agreement for the purpose, and to carry on the business of oil refiners and distillers, seed crushers, colour and white lead manufacturers, and grinders, varnish, grease, pitch and tar manufacturers, iron and tin can, drum, keg and cask manufacturers, &c. The first subscribers (who take one share each) are:—J. A. Sweetland, 70 and 71 Bishopsgate Street Within, E.C., produce broker; H. Compton, 2 and 3 Aldgate, E., army contractor; A. Heald, 43 St. Luke's Road, Westbourne Park, W., gentleman; F. W. Burrup, 12 Royal Exchange, E.C., stationer; Wm. D. Wallace, Woodside Lane, North Finchley, white lead manufacturer; Max Kirchberger, 4 St. Mary Axe, E.C., merchant; S. F. Hayes, Upton Lane, Forest Gate, E., accountant. The first directors (to number not less than 3 nor more than 6) are John Sherwood, Frederick W. Heald and John S. Sherwood, of which the last two are managing directors. Qualification, 500*l.* Remuneration, as the shareholders decide. Registered office, Leadenhall Chambers, 4 St. Mary Axe, London, E.C.

CO-OPERATIVE WHOLESALE DRUG COMPANY (LIMITED).—Capital 25,000*l.*, in 10*l.* shares (of which 1,250 are 8*l.*-per cent. cumulative preference). Objects: To adopt an agreement dated June 19, 1894, made between A. Scarfe, of the one part, and the company of the other part, to acquire the businesses of certain wholesale druggists in various centres in the United Kingdom, and to carry on the business of wholesale and export druggists, drug and chemical grinders and manufacturers, and any business of a similar nature. The first subscribers (who take one share each) are:—N. J. Lewis, 51 Bedford Road, Rock Ferry, chemist and dentist; J. R. Sinum, 56 Hamilton Square, Birkenhead, chartered accountant; Jno. Scarfe, 19 South John Street, Liverpool, broker; C. F. B. Wilson, 67 Lord Street, Liverpool, solicitor; R. Vaughan, 95 Caledonian Road, Leeds, drug-merchant; Wm. Rayson, 36 Tunnel Road, Liverpool, E., clerk; John Grant, 101 Belmont Road, Liverpool, broker. The first directors (to number not less than three, nor more than seven) are:—John Scarfe, E. A. Kerruish, and John Grant. Qualification, one share. Remuneration as the company determines. John Scarfe is the managing director, to continue in office for ten years; remuneration, one-third of the profits earned by the company in each year, with all expenses.

GARMAN BROTHERS (LIMITED).—Capital 5,000*l.*, in 1*l.* shares (of which 2,000 are 7*l.* 10*s.* per cent. cumulative preference). Objects: To acquire the business of wholesale and retail chemists and druggists and dentists, now carried on as Garman Brothers, at 278 and 280 Roman Road, Bow, E., and at the Park, Tottenham, N., to enter into an agreement with C. E. Garman, for the purpose, and to carry on the business of chemists, druggists, drysalts, dispensers of medicines, perfumers, and dentists. The first subscribers (who take one share each) are:—Wm. Poulten, Stationers' Hall, E.C., publisher's assistant; P. S. Cooper, 703 Fulham Road, S.W., commercial traveller; W. Powles, 16 Brewster Gardens, S.W., electrical engineer; F. T. Tratman, 30 Granville Square, W.C., clerk; J. B. Dore, 44 Morington Road, Bow, E., copper-smith; Francis B. Parker, 224 Roman Road, Bow, E., chemist's assistant; V. H. Skeats, 35 Tredegar Road, Bow, E., pianoforte maker and tuner. The first directors (to number not less than three nor more than five) are:—Isaac J. Booth, Alfred H. Parker, Henry J. Thompson, and Cornelius E. Garman (managing director). Qualification, 5*l.* Remuneration, 1*l.* J. Booth, three guineas for every meeting of directors attended; Alfred H. Parker and H. J. Thompson will receive two guineas each; while the managing director's salary has been fixed at 100*l.* per annum, and a percentage of the profits, when the preference dividend is paid.

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The Practitioner.

WE have subjected FLETCHER'S CONCENTRATED LIQUORS to a prolonged test, and we are able to report that, when diluted according to the directions given, THE RESULTING TINCTURES, &c., ARE INDISTINGUISHABLE IN STRENGTH, APPEARANCE, AND EFFICACY FROM THE OFFICIAL PREPARATIONS."

Editorial Comments.

GROCERS AND PROPRIETARY MEDICINES.

THE Grocer has discovered that "the position," as regards the sale of medicines which may contain poison "is a most unsatisfactory one." So it is from a grocer's point of view, and we are glad it is recognised; but this is almost the only statement in connection with the subject which our contemporary gives accurately. The writer makes the following assertions:—

The manufacturers strongly opposed the 1868 Act, until the Pharmaceutical Society got their opposition stopped by promising that their goods under the term "patent" medicines should be excepted from the operation of the Act.

The defendants in the several cases that have been tried, made gallant efforts to recover some traces of the foundation of this legend, but we have never yet heard of a record of any negotiations on the subject whatever. If the Grocer can furnish any documentary evidence of the story which it so confidently announces, the information will be of considerable historic value. Until then, however, its charges of bad faith against the Pharmaceutical Society and chemists generally are misplaced.

The Inland Revenue authorities have all this time been issuing "patent" medicine licences, when, as a matter of fact, there have been no patent medicines, in the literal meaning of that phrase, on sale.

When have the Inland Revenue authorities issued "patent" medicine licences? This is another of the pet legends of

the "anti-pharmaceuticalites" which has no foundation in fact.

That the framers of the Act meant to allow the unrestricted sale of proprietary medicines is evidenced by the fact that they used the term "patent medicines" instead of the usual term "medicines prepared under letters patent granted under the Great Seal."

Why should it not be supposed that once in a way the framers of the Act meant what they said, not what A, B, or C thinks they ought to have said? They exempted patent medicines, and it has been shown that there was a fair reason why they should do this. If the words "proprietary medicines" had been inserted, Mr. Robert Lowe and a few other men who criticised the Bill in the House of Commons very keenly, would pretty certainly have found something to say on that topic.

The Pharmaceutical Society are seeking to obtain a monopoly in the sale of proprietary medicines, and are trying to prevent oilmen from selling carbolic acid because they allege that it is dangerous for oilmen to sell it. They ignore the fact that in by far the largest percentage of deaths from the misuse of poisons the articles have been obtained from chemists, who often entrust the duty of selling poisons to the shopboy or an irresponsible junior.

The charge against the Pharmaceutical Society has not yet had any effect on any Court before which this question has been brought, and is, besides, quite irrelevant. The latter part of the above-quoted paragraph may be literally true, but the suggestion conveyed is as false as it well could be. Most poisons must be bought from chemists; therefore it is likely that in the majority of deaths from poisoning the purchase was made from a chemist. But carbolic acid, not being a scheduled poison, is the notorious exception. Not once in ten times, as far as we can trace from our reports, is it bought from a chemist for purposes of suicide, and this is the great argument for scheduling it. When lives are at stake, as they are in this matter, we are surprised that a paper of the high character of the *Grocer* should stoop to the unworthy argument that the advocates of the policy which it has thought fit to oppose are merely actuated by the meanest of trade motives.

Finally we observe that this authority is confident that if its clients will move in the matter they can get legislation more in accord with their desires. Our contemporary's prophetic insight may be better than its historic capacity: we do not presume to meet it on that territory.

ELECTROLYTIC ALKALI.

It has hitherto been the fate of electrolytic processes for the production of soda and chlorine from common salt to be boomed while they were in the experimental stage. We have, on more than one occasion, been compelled to point out defects in such processes, even when conducted on the experimental scale, and we must always deprecate anything savouring of cocksureness about the success of this or that process until it is tried commercially. Our pessimism does not go so far as to suppose that a successful electrolytic alkali process is impossible; on the other hand, each method announced seems to carry us a point nearer the desired haven. But it is quite another matter to treat each new process as a commercial undertaking, and a reasonable thing for investing money in. The latter consideration appears, indeed, to have been the *raison d'être* of most of the processes, and that is sufficient reason for our measuring every process by that standard as well as by intrinsic scientific and technical excellence.

A communication appeared in the *Times* on Thursday re-

garding a process which has been invented by Mr. H. Y. Castner, manager of the Aluminium Company, of Oldbury, which, the *Times* writer says, is of such merit that the old Leblanc and Solvay systems are endangered by it. There is much else of an equally glowing description in the article, but, robbing the description of its adjectives, it reads as follows:—

The essential feature of the new process is the employment of a moving body of mercury, which separates the products of the electrolysis, and by its movement takes the place of a diaphragm, the amalgam formed by the electric action being decomposed electrically as rapidly as it is so formed. Mr. Castner has found how to use a minimum amount of mercury only. The cells employed, each divided into three compartments, are capable of being continuously rocked or tilted, so as to make the mercury flow from side to side. Two outside compartments contain the alkaline chloride solution and the carbon anodes, while the middle compartment contains an iron cathode and the caustic solution. The salt solution is continuously circulated through the outside compartments, where it is electrolysed, and then returns to saturators, where it is recharged with salt. The products of electrolysis are chlorine and sodium, which form an amalgam with the mercury. The process is continuous, and the electrical efficiency is as much as 88.90 per cent. No hypochlorites are produced, the solution forming and carrying the electrolyte is in continuous use, and the electromotive force required for each cell is low, due to the non accumulation of sodium in the mercury, and particularly to the fact that the electrodes are brought almost into contact. The process has now been in operation at Oldbury for over six weeks, and it has been found that each cell, which is 6 feet long, 3 feet wide, and 6 inches deep, decomposes 56½ lbs. of salt daily, producing 38½ lbs. of caustic and 34½ lbs. of chlorine in twenty-four hours, for an expenditure of 3½ i.h.p. The caustic solutions produced contain 20 per cent. of caustic soda, and yield by direct evaporation a solid caustic of 99.5 per cent. purity, while the chlorine gas is of 95 to 97 per cent. purity, the balance being hydrogen. The Aluminium Company have erected at Oldbury a plant of 30 cells, with a daily output of 1,200 lbs. of pure caustic soda and 1,000 lbs. of chlorine, with an expenditure of 110 i.h.p. A number of chemical experts who have examined the process, including Sir Henry Roscoe, M.P., Mr. Ludwig Mond, and the chief officials of the United Alkali Company, have expressed a favourable opinion of the process and its prospects.

We see nothing in the foregoing statement to justify the assertion that the Leblanc and Solvay processes are in danger, or anything to anticipate that the Castner process will be a commercial success. One would imagine from the statement that the process works with rare smoothness, and without difficulties. We do not suppose that to be possible with cells of the construction indicated, and a chlorine gas containing from 3 to 5 per cent. of hydrogen indicates the existence of those by-reactions which have been all the trouble in other processes. The statement that the Aluminium Company have put down "a plant with a daily output of," &c., does not pierce our dull understanding. We want to know if the company actually produce 1,200 lbs. of caustic soda and 1,000 lbs. of chlorine daily; have they produced that in any one day, or can they? Why should the *Times* be selected for giving publicity to Mr. Castner's statement? Was it for the purpose of enlightening the scientific world, or cheering Aluminium Company shareholders?

SWEDISH CHLORATE OF POTASH.

THE recent arrival in London of a large parcel of Swedish chlorate of potash may prove to be an event of some importance in the history of the chemical-trade. Until now the manufacture of potassium chlorate has been essentially a British industry, and for the last two or three years the profits of the Alkali Union must have been largely made up

of the gains on their chlorate-of-potash business. Before the Alkali Union was formed, the rival manufacturers who were bought up or merged into that concern had cut down the quotations for chlorate of potash to a figure at which the manufacture can scarcely have been remunerative. In the course of 1889, for instance, the quotation fell to barely 4½d. per lb., the lowest figure ever touched by the chemical. But the formation of the Alkali Union transferred the management of the entire chlorate-of-potash industry in this country, with the solitary exception of one firm in the Midlands, into the hands of that powerful organisation, and during the time of their existence the Alkali Union people have succeeded in raising their quotations, by slow degrees to double the bottom figure. In the beginning of 1893 an exceedingly active speculative movement caused a temporary rise in chlorate-of-potash to 9½d. per lb., but from that time forward the price has gradually broken away. The Alkali Union, however, have kept a very tight grip on the market, and, in accepting contracts, have made it a general practice to demand of the purchaser for what market the goods were required. By doing so they have been able to prevent any particular market from being swamped with supplies, and it is probably largely due to the precautions thus taken that the price has been so well maintained as it is. Since last December, however, the market has fallen from 7½d. to 6d. per lb. f.o.b. Liverpool, and the Union's quotation therefore again stands midway between the highest and the lowest figures of the last few years. Unfortunately for the Alkali Union, there is not much prospect that the chlorate quotations can be maintained at this level, for fresh competitors are endangering the stability of the market from various quarters. Even without new sources of supply, there was not much difficulty in producing sufficient to fill the world's requirements, and since the successful inauguration of factories (not only in Sweden, but also in Switzerland) working on the new electrolytic process, there is positive danger of absolute over-supply.

The Swedish factory to which we have referred is situated at Stockholm. As it possesses cheap water-power, it is particularly well situated for the application of the electrolytic process of manufacturing certain chemicals at prices at which other makers will find it difficult to compete. There is a very large consumption of chlorate of potash in Sweden, where the safety-match industry absorbs hundreds of tons yearly, but the new factory is not waiting until it has conquered the home market before attacking the British makers on their own ground. Foreign chlorate of potash (German and French) has been imported into this country for many years, though not in sufficient quantities to inflict any great injury upon the British chlorate industry. It may be somewhat different with this new Swedish competition. At any rate, the prospects for the coming year are rather uncertain, and if the market is left a prey to unrestricted competition it may well be that before many months are over the price will give way another 10 or 15 per cent. Until quite recently, we understand, the probability of competition from the new quarter was made light of by the British producers. Now that the first shipment has actually been placed on the London market, and Swedish chlorate of potash is being offered upon neutral markets, such as Germany, the Alkali Union may begin to think it worth while to treat the newcomer more seriously.

THE DRAWBACK ON EXPORTED TINCTURES.

SOME little difficulty has arisen since the publication of the General Order of the Board of Inland Revenue (*vide*

THE CHEMIST AND DRUGGIST, July 28, 1894) respecting the method of calculating the bulk gallons and drawback. Reference to the order shows that, according to section 4, all exportation by weight is to be checked by measurement, and the volume recorded in decimal parts of a gallon. This alteration clearly indicated the difficulties that had been met with in calculating the volume from the specific gravity when exporting by weight. Considerable variations were continually being found, in exportations of this character, between the calculated proof gallons and that found by taking the specific gravity of the sample, which led to corrections and deductions entailing much extra labour. Hence the later method of declaring both weight and measurement. But the last order, in remedying this state of things, has landed the Board's officers into another dilemma. The calculations for drawback, according to section 5, are to be regulated by the General Order of February 4, 1893. This particular order has not been printed before, being merely an instruction to officers; but as an illustration of confusion made worse, confounded, it may be quoted here *in extenso* :—

Paragraph 29.—As regards the mode of calculating the quantity for drawback, the bulk quantity need not be calculated more closely than to the thousandth part of a gallon; but when the quantity measured from six bottles exceeds an even thousandth, the quantity should be regarded as excluding the next higher thousandth. Thus, a quantity measuring .037 should, when there is a fraction of half or more towards the next division, be regarded as .038; any quantity above .037 not equal to half a division being omitted from the calculation. In computing the proof the product of the number of measures into the quantity in each measure (in thousandths) should be taken to the next higher centesimal when the fraction beyond the centesimal exceeds .005, smaller fractions being disregarded; thus 1.125 gallon should be considered as 1.13 and 1.124 as 1.12.

This order referred to essences and perfumes, but when used according to the latest instructions has led to amusing results. It will be hardly surprising to learn that some officers have passed papers containing bulk and proof alike worked only to the second place of decimals. Others have insisted upon the bulk being recorded to the third place, but the proof gallons only to the second. Finally, others, again, have maintained that the third place of decimals must be used in each instance. Curiously enough, the Board's inspectors appear to have passed all the papers, no matter how calculated, which is fairly clear evidence of their own divided opinion on the subject.

A new set of papers is about to be issued which will definitely set the matter at rest. As the third place of decimals is the more accurate method of calculation in each instance, it will doubtless be adopted. This will also bring the drawback on perfumes, essences, and tinctures all into line; and to carry out the modified method for weight and volume, the division previously filled in with "number of bottles to a gallon" will probably be altered to "contents of a bottle to thousandth part of a gallon."

AMERICAN vs. RUSSIAN PETROLEUM.

There has been a great deal of talk lately about an agreement, alleged to be on the point of conclusion, between the American and the Russian petroleum interests. Hitherto fierce rivalry has been the order of the day between the Standard Oil Company, the great petroleum "trust" of the United States, and the Russian producers, and gradually American petroleum has been driven from many important markets. But it was rumoured that this competition would shortly cease and the world divided up, for petroleum-supplying purposes, between the two mammoth producers. According to the *New York Herald*, however, the negotiations are

at an end, and hostilities have been commenced "that may result in a royal battle for the supremacy of the world in this important industry." The Russian Government, whose agents conducted the negotiations on behalf of the oil interests of that country, is said to be much displeased with the independent attitude of the Standard Oil Company, and has shown its resentment by cutting freight-rates on oil 50 per cent. and by reducing the export duty from 34 to 24 kopecks per pood. This move means that the Russians will sweep everything before them in the European markets—the foreign stronghold of the Standard Company—unless the latter follows the Russian example. The Russians, however, can supply refined oil for 1*½* a gallon, and if they remove the artificial barriers, such as export duty, which they have themselves erected against the industry, they can, it is said, beat the Americans hollow. In connection with this announcement it is reported that Mr. Wm. Rockefeller, the President of the Standard Oil Company, who has been in Europe for two months, and is said to have had an audience of the Tzar, has returned to the States.

ANOTHER CONSUMPTION-CURE.

The *Times* correspondent at Paris reports that there has been a good deal of talk lately at Geneva in regard to the discoveries of Dr. Viquerat in regard to his treatment of tuberculosis, which consists of subcutaneous injections of the serum of asses. Of twenty-seven patients treated twenty-five, who had been given up by their physicians as lost, are entirely cured. M. Viquerat has explained his method in a public lecture at Mendon, at which a number of doctors were present; and a philanthropic Genevan has founded in Geneva the Viquerat Institute for the treatment of persons suffering from tuberculosis. It will be opened on November 1. "The institute desires to receive patients," says the report, "even those whose case is looked upon as hopeless, and if the splendid results obtained hitherto are confirmed, as it believes to be certain, it hopes to restore the health of its patients in a comparatively short time." This seems a direct invitation for the hopeless to hope, and for consumptive people this is the most saddening circumstance. It will be noticed that Dr. Viquerat's treatment is entirely uncorroborated by medical testimony, which is not surprising; for though the tuberculous bacillus may not care for asses' serum, the latter can have no effect on the tuberculous lesions. Perhaps the whole thing is a revival of the asses' milk superstition.

CIDER AND PORT WINE.

A correspondence is at present being carried on in the *Times* on the subject of "How to Help Agriculturists," and on September 19 appeared a letter from Sir George Birdwood, containing some valuable advice to farmers on the subject of cider-manufacture. The writer draws a contrast between the process as carried out in Normandy in a careful and scientific manner and the English slipshod method of manufacture. In Normandy, he says, the utmost care is taken, not only in the selection of fine ripe fruit but also in the selection of soils best adapted for apple-growing. There the people eat only such apples as are not quite good enough for cider-making, and the process of fermentation of the juice is carefully watched and kept under observation by chemical experts employed by the Government. In England all this is left to the haphazard care of the farmer, and any kind of apple, provided it is not fit to eat, is thrown into the mill and generally only windfalls used in every stage of immaturity and putrefaction. As a natural consequence the product from Normandy is far superior to that of English make, and its production has enormously increased during recent years in Normandy, until now the total annual amount reaches some hundreds of millions of gallons, the larger

portion of which is used in the sophistication of champagne. There is one very popular cheap champagne which any Devonshire or Herefordshire man will know to be cider entirely. An interesting paragraph then follows on the manufacture of certain so-called port wines.

Again, says Sir George, so far as the impression on the tongue goes, the best of ports can be made entirely of cider, coloured with red beet-juice and a very little logwood, and characteristically flavoured with rhatany. It is the cunningly-apportioned rhatany-root that gives the full flavour to the cider, recognised by the delighted connoisseur as the determining criterion of authentic port!

The failure of the Britisher to keep pace with the competition of the foreign merchant is said to be chiefly due to the antiquated methods of manufacture followed in this country. On September 20 a letter appeared from Mr. Oswald Crawford, lately the British Consul at Oporto, in which he states that Sir George Birdwood's remarks on the manufacture of port wine are inaccurate, as from personal knowledge acquired whilst in Spain he can testify to the genuineness of the wine imported. He further states that the plentiful supply of port wine would render any such sophistication as that with cider unnecessary.

PITY THE POOR STOREKEEPERS.

The supply of grievances must be running pretty dry or Mr. Labouchere's intelligent young man would hardly have endorsed such a ridiculous complaint as the one which is paraded in this week's *Truth* as follows:—

A well-known firm of storekeepers at Manchester have informed me of a curious proceeding on the part of the Pharmaceutical Society. Amongst other things the firm sell patent medicines, and it has now been found that one of these was an article containing morphine, contrary to the Pharmacy Act, 1868. It was not labelled "poison," however, and the firm were not aware that it contained poison, or they would not have sold it. The first intimation they received that they were breaking the law came in the form of a communication from the Pharmaceutical Society claiming two penalties of 5*l.* each, and, in addition, the costs of the solicitor's letter. The Society, it appeared, had procured two bottles of the stuff from the firm's shops, but the name of the medicine was not specified in the letter, and the sellers were left to discover which it was. The course adopted by the Society seems to me very arbitrary and unfair, and more worthy of a common blackmailer than of such a responsible body. The Manchester firm, I am glad to learn, have refused to comply with the demand for penalties, preferring to be openly sued in court rather than submit to such extortion.

The "well-known firm of storekeepers," who have so excited *Truth's* compassion must be very guileless and very stupid storekeepers if they have not learned by this time that it is a penal offence for an unqualified person to sell a poisonous medicine. If they do not know how to protect themselves against the risk they had better give up storekeeping. It may seem a very desirable thing to *Truth's* staff that incompetent persons should be dealing out poisons without being aware of the fact, but *Truth's* readers will probably look at the matter from the point of view of their side of the counter.

BANKRUPTCY ACTS COMPARISON.

The Inspector-General in Bankruptcy and Sir Courtenay Boyle, of the Board of Trade, in the official report for 1893 on the Bankruptcy Acts, which has just been issued, both take the opportunity presented by the date to institute a comparison between the working of the Act of 1883 during the ten years it has been in operation with that of its predecessor. The 1869 Act, which aimed at letting creditors and debtors settle their affairs in a go-as-you-please fashion, proved a ghastly failure. It would have worked all right if the creditors could have been induced to combine, but that was just what they never did. Then the wreckers stepped in,

and got all there was to be got out of the ostia'es. In comparing the results of the two administrations, some confusion occurs from the fact that deeds of arrangement have only been registered since 1888, but, assuming that their average before that date was about the same as that of the period which has elapsed since, the later Act has had the effect of considerably checking risky trading. The average annual number of bankruptcies during the ten years preceding 1883 was 9,680 per annum, with an average annual liability of 21,990,000*l.* The average number of bankruptcies and deeds of arrangement during the ten years since 1883 is estimated at 7,880, and the liabilities at 8,000,000*l.* less per annum than those of the previous decade. But, independently of any actual saving to honest traders which may have been effected, the moral influence of the later Act must have been very great. The knowledge that a searching public examination and other possible results will follow the failure to fulfil financial responsibilities has no doubt deterred many thousands from undertaking speculative business which they could not afford, and no doubt the Inspector-General is justified in claiming that "unscrupulous competition by reckless and irresponsible competitors has been greatly diminished." It is not perhaps surprising that the new Act is not popular with debtors; and creditors are likely enough to transfer to it the annoyance they feel when they recover only a fraction of what is due to them. But Sir Courtenay Boyle assures us that there is no evidence of general dissatisfaction on the part of persons actually interested in estates; and though "the professions" (*i.e.*, the solicitors and accountants) still carp at the Act, the Board of Trade decline to regard their opposition "as in any sense a measure of public dissatisfaction."

CARAWAY-CAKE COMEDY.

ONE of the *Pall Mall Gazette* snapshot interviewers has turned his unwinking eye upon Mr. Richard A. Bush, F.C.S., of W. J. Bush & Sons, Artillery Lane, and has extracted from him some quaint information regarding caraway-seeds, which shows that Mr. Bush has an abounding wit. This is the report. "*A propos* the march of science, Mr. Bush," said the *Pall Mall* snap shooter, "What is the latest achievement?"—"Have you heard," said Mr. Bush, "of the essence of caraway-seeds? That sir, is one of the greatest benefactions of the nineteenth century."

"Indeed! How is that?"—"I will tell you. You may know that the caraway-seed has a peculiarly agreeable flavour of its own."

"Yes, I remember some time ago, as a child, being struck by the fact when eating cake."—"That is so. Caraway-seeds are largely used for flavouring cake. It is a fact that is generally admitted. But you may or may not be also aware that caraway-seeds are highly indigestible. You may perhaps have observed that you do not eat caraway cake so often as when you were still in your teens."

"Yes; now you come to mention it, it seems years since I ate any."—"Quite so. Very few men eat it after they have arrived at years when their teeth and digestions are not what they used to be. The reason is, although they may not be conscious of it, that they get a distaste for caraway cake because the seeds don't agree with them. To be scientifically accurate, caraway-seeds induce stomach-ache."

"Well?"—"Well now you see the importance of the thing. We are now able to extract from the seeds the delicate flavour, eliminating all the deleterious fibrous matter that causes indigestion. What is the result? So much is added to the sum of human happiness. Men, old men, can now eat caraway cake, who have been yearning for it in vain for fifty years. I know plenty of instances in which men, eminent men, whose lives were made miserable by their inability to gratify their craving for caraway cake, are now, thanks to this great discovery, spending their declining years in sweet and hountiful contentment. They get cake flavoured with caraway-essence, they escape the pangs of stomach-ache,

They meditatively munch and are happy. Why, there is a great detective, a famous man at Scotland Yard, who has for years been unable to touch it for the reasons I have mentioned. All his achievements have brought no joy to him, for he could neither eat caraway cake nor find anything else he liked half so well. In a fortunate moment the essence was invented. He ate three caraway cakes on Sunday afternoon, rose next morning full of vigorous health, and the consequence is he went out and effected a sensational arrest, concerning which the world has been ringing ever since."

SANDALWOOD OIL.

By E. J. PARRY, B.Sc.

A MONTH or two ago, I was shown a formula which was being used by a firm for the manufacture of sandalwood oil, and this oil is being used largely for cheap capsules. The formula in question was

	Parts
Ol. santali	72
Ol. cedri	23

I have since then obtained two samples of the capsules made with oil which I traced back to the above source. The object of this note is merely to advise chemists to examine the capsules and oil which pass through their hands. As a rule a few drops of the oil placed on blotting paper and heated, give off a marked odour of cedar oil. A simple and fairly reliable test, however, is the following, due to Mesnard, but slightly modified. Five or six drops of the oil are placed on a glass or glazed porcelain slab, and two drops of concentrated sulphuric acid are dropped on the centre of the mass. The whole is rapidly and thoroughly stirred with a glass rod without spreading the mass further than necessary and allowed to stand for three minutes. If the oil is pure it will darken to a homogeneous colour and become very viscous, sticking fast to the plate and eventually becoming almost pasty, and if a gentle stream of water from the tap be allowed to fall on the plate, which is held nearly vertical, and then to run over the mass (not directly on to the mass from the tap) it will not be washed away in the course of a minute or two. If the oil is adulterated with cedar oil, the mass still darkens, but does not become so homogeneous and does not thicken to anything like the same extent, and the bulk of the mass is quickly washed away by the stream of water. If the pure and the adulterated oil are treated exactly the same, side by side on the same plate, and the water allowed to run over them both at the same time, taking care that it reaches both masses simultaneously, the two being in the same horizontal line under the tap, the difference is very marked. The amounts of oil and acid used are of importance and should be adhered to.

Personalities.

MR. HARRIS, assistant with Mr. Kirby, chemist, Northampton, pluckily rescued a woman from drowning last week at Northampton.

THE herbarium of the late Mr. A. E. Lomax, of the Northern Dispensary, Liverpool, has been purchased by the authorities of the Liverpool University.

MR. JOHNSON, of Messrs. Fassett & Johnson, Snow Hill, E.C., sailed on Wednesday, by s.s. *Majestic*, for New York, and will stay at the New Netherland Hotel.

AT Dartford (Kent) Petty-sessions, on Saturday last, the Chairman of the Bench alluded in feeling terms to the death of Mr. Edward Horner, J.P., and a vote of condolence with the family of deceased was passed.

A COMMITTEE has been formed to present a testimonial to Mr. T. C. W. Martin, the well-known town-traveller for Messrs. S. Maw, Son, & Thompson, to celebrate the completion by him, on October 11, of fifty years of service with that firm. Mr. E. N. Butt is chairman of the committee, Mr. M. Carteighe is treasurer, Mr. Fred Banks, 23 Braxfield Road, Brockley, S.E., is honorary secretary.

Practical Notes and Formulae.

VARNISH FOR TIN BOXES.

	Parts
Turpentine	8
Boiled linseed oil	4
Amber gum	4
Shellac	1

Melt together, and colour with encrema or aniline colours.

IRON FOR VIN. FERRI.

A MEDICAL journal recommends that soft steel filings should be used in place of iron wire in the preparation of the above wine. It is claimed that the immense amount of mechanical treatment in the way of hammering, rolling, and drawing which is required to make iron wire, renders it extremely difficult to dissolve. According to experts, it may be considered a practical rule that any brand of steel, capable of making good axle or boiler-plate, will also yield pure preparations on dissolving.

DEPILATORY.

The *New York Medical Record* gives the following:—

Iodi pur.	gr. xij.
Ol. terebinthine	℥xxx.
Ol. ricini	℥ ss.
Alcohol	℥ lijs.
Collodion	℥ li.

M.

Apply daily for three days. When the collodion comes away a clear surface will be left.

TO PROTECT AND TO REMOVE RUST FROM INSTRUMENTS.

SANGU recommends to place the instruments over-night in a saturated solution of zinc-chloride. The rust disappears through reduction. On removing the instruments, rinse them with clear water, place in a hot soda and soap solution, and dry. It is also advantageous to polish with absolute alcohol and chalk. The *Pharmaceutische Centralhalle* gives the following method for prevention of rust:—Dissolve 1 part of paraffin oil in 200 parts of benzine. Wash the instruments dry in a current of warm air, and dip them into this solution, moving the different parts (scissors, tongs, &c.), and then lay on a plate in a warm room to dry.

A HOME-MADE CHEMICAL BALANCE.

La Nature, for September, shows how a sensitive balance may be made out of the simplest materials. The beam of the balance is made of a knitting-needle, which is passed through a half-bottle cork split longitudinally. Two sewing needles are pushed downwards through this cork (one on each side of the beam), and the points, brought to a level, rest on the lip of a bottle and swing from them. To keep them from slipping, a groove is filed on one side of the lip, and on the other side, just opposite, the file is used to grind a minute aperture; thus one needle rests in this hole, and the other in the groove. Then another split cork is fastened to each end of the beam, and a sewing-needle, eye-end down, is pushed through. This forms a point of suspension for a tiny wire hook, from which are hung the pans—pieces of cardboard held by fine wire or silk thread. The balance is complete now, but not sensitive. The "gravity-bob" is produced by pushing a very fine knitting-needle through the central cork (which is over the bottle-mouth) till it reaches half-way down the bottle. This needle projects also above the central cork, and on this portion is slipped a small cork, which, by being placed higher or lower, enables the sensitivity of the balance to be established. The lower portion within the bottle forms the indicating needle, and, if too long, thin pieces of stiff paper should be glued face to face over this part of the needle, before it is placed in the bottle. They will have spring enough to return to a condition of flatness when they pass the neck to the interior, and then their edge being near to the surface of the glass, enables the pointer to be read easily against a paper scale pasted upon the glass. Weights are to be made of a length of thin wire cut up in a suitable manner—the longer ones coiled or bent. The standard-weight is to be a 20f. piece, selected for its average weight out of several. For this country, a new sovereign would answer, its correct weight being 123.37447 grs.

TABLETS TO REMOVE IRONMOULD.

MELT together equal parts of oxalic acid and alum, form into cakes, and wrap in paraffin paper and tinfoil.

VARNISH FOR BOTTLE-CAPS.

	Parts
Guttapercha	1
Shellac	10
Turpentine	1
Alcohol	45

COGNAC-ESSENCE.

	Grammes
Ceanthie ether	30
Ethyl nitrite	30
Oil of wine	10
Acetic ether	127
Dilute alcohol	180

CELLULOID VARNISH.

	Parts
Gun-cotton (pyroxylin)	1
Ether	3
Alcohol	4
Camphor	0.25

Dry the gun-cotton over sulphuric acid, and pour over it the ether and alcohol; decant the clear solution after a few days, and add the camphor.

This can be diluted if necessary with wood alcohol, and may be coloured with any desired aniline tint.

KOUMISS.

Compressed yeast	0.5 grammes (7½ grs.)
Water	60.0 " (2 fl. oz.)
Sugar	4.0 " (60 grs.)
Milk-sugar (granular)	7.0 " (105 grs.)

Stir the yeast with the water with a horn spoon, pour into a strong bottle of about 400 c.c. or 13-oz. capacity, add the sugar and milk-sugar, and fill with cows' milk which has been previously boiled and cooled. Stop up the bottle, tie the cork down, and shake well; then lay the bottle for six hours in a warm place, and then put in a cold place in the cellar for forty-eight hours. The koumiss will then be ready for use, and should be shaken before using.

—*Dieterich's Pharm. Manual.*

DETECTION OF IODATES IN ALKALINE IODIDES.

MATTEO SPICA (*Gazz. Chim. Ital.*) proposes to utilise the fact that while barium iodate requires 1,736 parts of water to dissolve it at 150 C., barium iodide is very soluble in water or salt solution. Dissolve 1 gramme of potassium iodide in 5 c.c. of water and add a small quantity of barium chloride solution. If as little as 0.002 per cent. of iodate be present, a granular precipitate will be thrown down which is insoluble in ten times the original volume of water, and is also insoluble in diluted acetic or hydrochloric acid, but dissolves on the addition of concentrated sulphuric acid if warmed. If the precipitate dissolves in acetic acid with effervescence the presence of a carbonate is indicated. If an insoluble precipitate remains after treatment with acetic acid in the cold the addition of warm acetic acid will disclose whether or not it is an iodate or a sulphate. This one test, therefore, answers for all three impurities.

AROMATIC CASCARA SAGRADA.

THE following makes a pleasant non-bitter cordial:—

	Oz.
Cascara sagrada	100
Calcined magnesias	30
Water	100

Mix thoroughly, and macerate twelve hours; then add 100 oz. S.V.R., and percolate, continuing the percolation with S.V.T. till 400 oz. are collected. With this percolate the following:—

	Oz.
Barberry-bark	37
Coriander-seed	17
Liquorice-root	2
Oil anisi	1½
" aurant.	1½
" cinnam.	1
Angelica-root	2

To the percolate thus obtained add S.V.T. to make 400 oz.; then add 400 oz. water and 400 oz. sugar, and dissolve.

Antwerp International Exhibition.

(FOURTH NOTICE.)



HAVING finished my round of the Belgian official and semi-official exhibits, I will now return to the main Exhibition building and take a view of the huge square, spreading to the right and left of the main entrance, in which the products of Belgian industry are shown. This section of the Exhibition is exceedingly interesting, and it is impossible to speak too highly of the general excellence of its contents, and of the care with which they have been arranged. Never has there been such a striking object-lesson of the commercial greatness of Belgium as is afforded in the 36,000 square metres of area within which nearly every Belgian firm of any importance in the country is represented by a collection of its products. Unfortunately, the official catalogue of the Belgian section was not yet obtainable at the time of my visit, and it is therefore impossible to give the exact number of exhibitors, but the Belgians alone probably number not very far short of 4,000. The thirteenth section, that devoted to the chemical industry, contains about 180 exhibits, to a few of the more prominent of which I will briefly refer.

CHEMICAL MANURES.

One of the chemical shows which claims special attention on account of its size and the importance of the industry it represents is that of the BELGIAN SOCIETY OF CHEMICAL MANURE MANUFACTURERS, 7 Rue de Jericho, Brussels, in which seventeen firms from all parts of the country are collectively represented. This exhibit occupies a large stand, draped in red; the walls are decorated with pictures and diagrams, intended to impress the visitor with the Behemoth-like character of the productions of the industry. A water-colour of Antwerp Cathedral is employed for purposes of comparison. The spire of that church, we are told, is 123 meters high, and has a maximum base-line of 15 meters. You are almost within touch of the structure itself, and can therefore form a fair idea of the meaning of those figures. Now the output of the combined Belgian chemical-manure works in 1893, could it be piled up pyramidal shape, would occupy an area 50 meters square at the base, and rise to 1,468 meters—practically the height of Ben Nevis. The yearly output of chemical manures in Belgium is large enough to restore to the soil all the phosphoric acid used up in the production of a crop of 175,000,000 bushels of wheat. It would require (according to the average yield in Belgium) a surface of something like two and a quarter millions of acres to produce such a crop—that is to say, nearly the whole of the area of Belgium itself. Rather out of keeping with the general up-to-dateness of this exhibit is a large map of the globe, in which the principal phosphate-producing centres of the world are shown by little flags, and which is at least fifty years old. In the centre of the stand is a large statue representing Agriculture, and round it are grouped flasks of potassium salts, sulphates of iron and copper, and other chemicals.

The trade in chemical manures in Belgium is controlled by a law passed some years ago, which requires all manufacturers of these substances to sell them on the basis of an analysis, which must be stated in the invoice, and the incorrectness of which renders the seller liable to a heavy penalty. There is something almost pathetic in these object-lessons in the growth of industrialism which meet one at every step in the Exhibition building. You cannot turn anywhere without being reminded by diagrams and wood or paper models of the huge quantities of industrial

products turned out year by year from the factories, mines and fields of this ant-heap of nations. But of the pitiful moral and material condition of the Belgian labourer the great Court is silent. On that subject, however, the visitor, if he cares for sociological studies, will find some interesting information in such publications as those issued by the late Royal Commission on Labour, or he need only pay a visit to the great industrial centres of the country—Liège, Charleroi, or Verviers—to find out how it is that Belgian, next to German, goods are the most formidable competitors with which Britain has to cope in neutral markets, and under what conditions of white slavery the bulk of them is produced.

THE SOLVAY COMPANY.

Hard by this exhibit is an equally large one devoted to the products of the firm of SOLVAY & Co., the soda and chemical manufacturers. The Solvays are the Rothschilds of the chemical trade, and the ramifications of their house are as international as those of the great financial firm. On a map in the exhibit are marked the eleven establishments controlled by the firm. Two of these—Sandbach and Northwich—are in England, one in France, three in Germany, two in Russia, and one each in Austria, the United States, and Belgium. The Belgian Solvay-works are at Couillet, near Charleroi, but the commercial headquarters of the firm in that country are in Brussels, at 19 Rue du Prince Albert. The Belgian establishment, which dates from 1863, is the oldest of all the Solvay works, and is able at present to produce 17,000 tons of carbonate of soda yearly, or about one-tenth the capacity of the English factories. It produces, besides soda crystals, chloride of lime and ammonia salts, and employs over 200 hands. The Belgian and French factories are the only three of the works under the direct control of the firm of Solvay & Co. (founded by Ernest Solvay in 1863), but the other factories are all more or less intimately associated with the original house.

According to an official statement issued by the Society, they claim to be model employers, and have assisted in the formation for the benefit of their employés of a pension fund, a sick-fund, and various other similar institutions. It may be mentioned that at their Belgian and French works the company have made arrangements with local pharmacists to supply medicines to employés of the factory and their families at a reduced scale, and that from one-third to one-fifth of the cost of all pharmaceutical goods supplied under this arrangement is borne by the company. Two or three large tables in the Solvay gallery are filled with specimens of products, in the manufacture of which the firm's goods have been employed. There are also, on the walls, pictures of a prehistoric animal (*Prognathosaurus Solvayi*, Dollo), discovered in the phosphatic lime at Ciply in soil belonging to the firm. The skeleton of the creature measured 15 feet, and was presented to the Brussels Natural History Museum by the firm. An instructive diagram in this court shows that the world's production of phosphates and superphosphates has increased from 7,855 tons in 1884 to 85,705 tons in 1893, while prices have undergone an almost proportionate decline during the same period.

In the centre of the Belgian Section the firm of REMY & Co., starch-manufacturers, of Antwerp, occupy a considerable space. The chief attraction of their exhibit is a huge pyramid of starch, rising from an elaborate wooden framework like the cone of some Antarctic volcano. Around it winds a broad blue ribbon, bearing the words "*Hors concours*." No particulars concerning the firm's output are given, but that they are anxious to cultivate an export business appears to be indicated by the fact that the visitor is invited to possess himself of a piece of blotting-paper and an elaborately-got-up laundry-ledger printed in various

languages. The English edition of this booklet states that Remy's pure "Royal Rice-sarch" may be had wholesale of all druggists. ROUBAIX, OUDENKOVEN & CIE, of Antwerp, to whose exhibit in the Congo Section I have already referred, appear again in the Belgian Section with a not particularly noteworthy show of candles and by-products of candle-manufacture, such as bright yellow re-distilled oleic acid, dull brown crude oleic acid, and various samples of glycerines obtained by distillation and saponification.

The big exhibit of the Liebig Extract of Meat Company (Limited), although less overpowering than the Kemmerich Column in the grounds, is sufficiently striking to arrest the attention of all passers-by. It occupies a prominent position not far from the French Section, and consists of three oxen, considerably over life-size, vigorously wrought in bronze by F. Lambeaux and Jules Lagac. The animals stand facing each other upon a huge hemisphere, supporting a gigantic



THE LIEBIG COMPANY'S EXHIBIT.

extract-of-meat jar festooned with facsimiles of the principal medals obtained by the house, and crowned by a bust of the famous chemist who has stood godfather to the Company. The bottom part of the stand is decorated with tins of beef, vessels of powdered meat, bones, and other industrial bovine products representative of the 200,000 head of cattle that are immolated every year at the Fray-Bentos abattoirs in Argentina. The exhibit (which has evidently been on show before) has been *hors concours* since 1885.

The CIE. ANGLO-CONTINENTALE, formerly OHLENDORFF, whose headquarters are at Antwerp, show the products of their large phosphate-works at Rocour, near Liège. The exhibit is a large one, but beyond a number of dishes containing specimens of the manures made by the firm, and copies of a minute treatise on the chemical advantages of the ground phosphates sold by the house, it does not contain anything which enlightens the visitor on the subject.

VARIOUS EXHIBITS.

Screened off from the surrounding exhibits in this neighbourhood is a small court devoted to excellent photographs

sent in by members of the BELGIAN PHOTOGRAPHIC ASSOCIATION, of Brussels. This quiet exhibit is well worth a visit from anyone interested in the photographic art, of which choice specimens adorn the walls. Another exhibit which deserves inspection is the brilliant display of the CRISTALLERIES VAL ST. LAMBERT, which, besides an immense assortment of the finest ornamental crystalware, including scent-bottles and other druggists' sundries and requisites, contains specimens of almost all kinds of glassware used for electric-lighting purposes. Common glassware, such as bottles and lamp-chimneys, is also produced in immense quantities by the Val St. Lambert Cie. Fifty thousand lamp-glasses, for instance, are produced daily. The company own four glassworks (all in Belgium), at which 4,500 hands are employed, and which produce glassware to the value of 300,000% a year. The most prominent piece in the exhibit is a cut-glass vase over six feet high, crowned by the Belgian lion and ornamented with the arms of the nine provinces of Belgium. One of the most advertised preparations in the exhibition is "Odol," a tooth-wash, apparently of German origin, exhibited at a medium-sized stand by H. F. VAN HEWICK & Co, of Antwerp. "Odol" is described as "an anhydride of the aromatic series, answering to the formula $C_2H_4O_7$." This statement, with many others bearing a similar scientific appearance, is communicated to the public in a lengthy pamphlet, from which we also gather that odol, in addition to its chief usefulness as a dentifrice, may be used as a substitute for iodoform and as a remedial agent in certain skin diseases, such as eczema. The chief outward peculiarity of odol is that it is put up in singular-looking bottles, somewhat resembling a Phrygian cap in shape. Odol is sold in the form of its alcoholic solution, and it is claimed that half a million bottles of it have been retailed in Germany in the space of nine months. The exhibit is rendered more attractive to the general public by microscopic representations of the saliva pneumococcus and other similar parasites of the human mouth. The same firm who father "Odol" at this exhibition have a fine show of Fahlberg's saccharin, exhibiting the various uses of that sweetener, and close by EMILE WASSERFUHR & Co., of Laeken, have a small show of what, in Belgium, they are apparently allowed to call "vaseline."

VANDENBEMDEN & DEBEUL, 11 Rue Francken, Antwerp, are wholesale dealers in drugs, chemicals, and colours. They are much interested, likewise, in Sicilian pumice, of which they show specimens, whole and powdered. This pumice comes from the island of Lipari, where the firm have a branch-establishment.

The two rival German saccharins—Fahlberg, the original, and von Heyden's, a new comer—meet cheek by jowl in the Belgian Brewery-court, where both factories have small exhibits in adjoining cases, both firms, or rather their respective agents (VVE. H. NICOL, 122 Ch. d'Anvers, Brussels, for Fahlberg, and HEIDEREICH, of Brussels, for von Heyden), asserting the superiority of their own products. The ED. BEERNAERTS DRY-PLATE CO., of Ghent, has fashioned a kind of temple out of the blue-and-orange labelled boxes in which they put up their dry-plates. Whether the English name of the concern indicates that they propose to do business in this country, or is intended to make foreign buyers believe that they are dealing with an English house, may be left an open question. The plates are made in sizes from $4\frac{1}{2}$ in. by 6 in. up to 50 in. by 60 in.

Besides the few exhibits mentioned, the Belgian section does not offer anything of special pharmaceutical interest. There are exhibits of a few vinegar- and mustard-works, a couple of sponge-importers, and the like; but I entirely failed to find any of the drug-growers that send us every year such large quantities of chamomiles, roses, poppy-heads, and valerian-root, and the great oil-industry of Antwerp is poorly represented.

"DID you find out what that woman was hollerin' about?" asked Farmer Cornstossel's wife, when the old gentleman returned to their room in the hotel. "I asked the clerk," he replied. "And what did he say?" "He said it was 'ill trovatory.' I didn't like to show my ignorance by asking more questions, but I reckon maybe it's their sussietty name for colic."

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., September 20.

The Liverpool Market.

Our Liverpool correspondent, writing on September 18 reports that in *Gums* Soudan sorts are in rather small supply, and 42s. 6d. per cwt. has been paid for moderate quantities of good useful mixed qualities. Fine grades are very scarce. Brazilian and Niger descriptions meet with more inquiry, but so far the sales are small at steady prices. *Canary-seed* is quiet at 55s. per quarter for fine Turkish. Twenty-eight bales of Huanoco *Coca-leaves* offered at auction, and 1s. was bid, but owners wanted 1s. 1d. per lb. for the 20 best bales. *Mogadore Cumin-seeds* are arriving, but at auction no bids have been obtainable. *Beeswax* is in very good demand, and considerable transactions have taken place in Chilean at 7l. 2s. 6d. to 8l. per cwt. according to grade. *Honey* is also moving off steadily, large parcels of Californian and Chilean changing hands at improved prices: 40s to 45s. now asked for prime Californian, and 35s. to 36s. for Pile X. Chilean. *Anise: Chilean* is a shade easier at 22s. per cwt. for good clean seed. *Castor oil* has improved in value—2 $\frac{3}{4}$ d. being now asked for good seconds Calcutta and 2 $\frac{1}{4}$ d. for first-pressure French. Five bags of *Kola-nuts*, just landed, sold at 7d. per lb. Thirty bales of *Jaborandi* leaves, low quality, offered at auction, but no bids were forthcoming. *Chillies*: S. Leone continue steady in face of a slight demand, sales being made at 35s. per cwt.

The Grasse Flower-crops.

The summer has been abnormally dry in the Grasse district, and the flower-crops in general have suffered much in consequence. Jasmine has been plentiful, but the quality is inferior to that of last year. The mint-crop has disappointed expectations both in respect to quantity and quality. It is as yet too early to say how the tuberoses will turn out.

The Cinchona-planter's Dirge.

What would be the feeling of Mincing Lane if a London cinchona-broker were to rise gravely from his rostrum after a disappointing day's sale, and recite aloud an "Ode to the Hard Times" before closing the proceedings with the conventional "Gentlemen, we are much obliged"? The scene may be imagined, it cannot be described. Yet an incident on all-fours with such a shocking display of unseemly levity occurred at a recent meeting of Dutch business men, of all people in the world! The scene was in Java, the date July 14 last, and the occasion the annual general meeting of the Java Cinchona-planters' Association. The chief subjects on the agenda were the prospects of the cinchona-trade, the tea-business, and the soul-stirring question, bimetalism. The President, Mr. G. Mundt, read a paper on the cinchona outlook, taking for his text an editorial article in THE CHEMIST AND DRUGGIST of March 31, and then, observing that this concluded the agenda, drew from his pocket an "Ode" to which he regaled the assembly. The "Ode," or dirge, turned out to be a parody on the famous old German student's song, "O, alte Burschenherrlichkeit, wohin bist du verschwunden," and appears to have been received in a silence broken only by the suppressed sobs of those who failed to control their emotions. The verses were written in German, but, business being slack in the drug-trade, the C. & D. man has found time to turn "Occ. poet" for once, and to render into English the presidential effort, keeping as closely as possible to the German original, and preserving the dog-Latin chorus characteristic of the German "Commers-

buch." More than once the translator was on the point of throwing up the sponge, but the thought of the still unappropriated Laureate's butt of sherry inspired him with strength to hold out until the end. If anyone feels inclined to make light of his difficulties, let him attempt to retranslate the effusion into Dutch, not even necessarily of the double variety.

THE CINCHONA-PLANTERS' WAIL.

O glorious bark-trade days of yore,
Sav, whither are ye banished?
Will ye return with gold galore?
Are ye for ever vanished? . . .
'Twere vain to try that problem's knot;
The shilling unit's gone to pot.
O jerum, &c. am, jerum!
O quæ mutatio rerum!

The quinine-makers roll in oof,
Stone-broke are all we growers!
From us Dame Fortune holds aloof,
On them her wealth she showers.
Happy the man who 'scaped our fate,
On some secluded coffee-estate!
O jerum, &c.

The Planters' Club is in a fright,
No remedy they wot of;
Full many empty words they write,
Statistics they've a lot of!
But action never comes to pass,
There's no esprit de corps, alas!
O jerum, &c.

The Government's plantations grow
In spite of dwindling prices;
They reap, they strip, they plant, they sow:
The planters' dander rises,
In vulgar Dutch their wrath they vent:
"Potz-Himmel-tausend-Sacrament"!
O jerum, &c.

As Dante said, there is no greater pain than the recollection of happy times in days of misery. The "Ode," as printed in the official proceedings, with never a word of comment, looks bald enough, but who shall tell what agonies the unhappy President had borne before he thus burst forth into rhyme? And if it be true that

. . . Most wretched men
Were cradled into poetry by wrong,
They learned in suffering what they taught in song,

what a terrible load of responsibility rests upon the quinine-makers' combination which prevents the planters from earning an honest crust! The Ode, we may add, may be sung to the tune of Luther's well-known hymn.

Clove-adulteration in Zanzibar.

We called attention in these columns some months ago to the fact that the Sultan of Zanzibar had issued a proclamation forbidding the adulteration of cloves in his dominions owing to the diminished revenue received by his Highness, due to the inferior prices paid for those packages of the article which the Sultan claims as royalty. An order has been issued, signed by her Majesty's Consul-General and Diplomatic Agent at Zanzibar, in pursuance of the former proclamation, which provides certain penalties for the offence of adulterating cloves. The order provides that any person who sells, barter, or offers for sale, or for payment of Customs duty or debt, any cloves which have been adulterated by admixture with any foreign substances shall be liable to a fine, on conviction, of 1,000r. or to imprisonment for two months. The regulation came into force on September 1.

Vanilla-cultivation in Mauritius.

A correspondent in Mauritius calls attention to the fact that the cultivation of vanilla, which has hitherto been one of the staple products of the island, is rapidly diminishing, and will soon be a thing of the past. The cause has been put down to the continued robbery of the vanilla estates by the Indian immigrants, but the real reason of the discontinuance is the increasing competition of the vanilla grown in Bourbon, which can be produced there at a much cheaper

rate owing to the soil being more suited for its cultivation. The planters also complain that the fluctuation in prices, varying from 20r. to 100r. per kilo., render the article a very speculative one.

ACID (CITRIC).—*English* acid quiet at 1s. 2½d. per lb. *Foreign* might perhaps be had a shade under that price.

ACID (OXALIC).—The price remains 3½d. per lb.

ACID (TARTARIC).—A dull market, at 10¾d. to 11d. per lb. for *English* crystals, and 10¾d. per lb. for *foreign* crystals and powder.

ANISE.—The new season's *Russian* anise is now being offered. The quality of the crop is good, the seed being bold and cleaner than usual; at present 24s. per cwt., c.i.f. London, is asked, which is a high starting-price.

ANTIMONY.—Business has been done to-day in crude *Japanese* at 19l. per ton.

ANTITOXIN.—The expected supplies have not yet been received by the agents, who are only able to satisfy the demands to a very limited extent.

BALSAM COPAIBA.—The market is rather dragging, and very little business has been done lately. Fair to good bright *Maranhão* offers at from 1s 4½d to 1s 6d.; *Maracaibo*, at from 1s. 2d. to 1s. 4½d.; and *Pará*, at from 1s. 3d. to 1s. 5d. per lb.

BALSAM PERU.—The quotation is still 7s. per lb. for good quality, which is the reduced figure of the last sales. The market is not so firm as it has been, as there are now more holders.

CAFFEINE has been very difficult to obtain from the makers lately, although the price still remains what it has been for a long time, namely, 7s 9d per lb. It would seem that there is a great scarcity of the raw material.

CALUMBA.—We understand that several lots have been sold privately since last auctions.

CAMPHOR (CRUDE).—The market is quite dead at present, and quotations are only nominal. *Chinese* camphor is quoted on the spot at 117s 6d., and for October-November shipment at 100s. c.i.f. *Japanese* October-November at 112s. 6d. c.i.f.

CHAMOMILES.—New Belgian flowers are still coming down in price, and are now obtainable, according to quality, at from 37s. 6d. to 40s per cwt.

CHLORATE OF POTASH.—The market remains weak, and prices are generally tending lower. British chlorate offers, according to holder, at from 5¾d. to 6d. per lb. f.o.b. Liverpool, either on the spot or for the remainder of the year. For next year 5¾d. per lb. is asked. The *Japanese* war is partly responsible for this decline, as the chlorate-of-potash business to that country has been seriously interfered with. Foreign brands are quoted nominally at 5½d. per lb., but it is doubtful whether any can be had at present.

CINCHONA.—As forecast in our last Trade Report, this week's cinchona-auctions were rather heavier than usual. The catalogues numbered nine, and the total number of packages specified in them was as follows:—

	Packages	Packages
Ceylon cinchona	625 of which	347 were sold
East Indian cinchona ..	1,064 "	404 "
Javan cinchona	85 "	85 "
W. African cinchona ..	534 "	470 "
S. American cinchona ..	120 "	120 "
	2,423	1,423

The average quality of the *Eastern* barks was very poor, only a few lots of good *Officinalis* and *Lodger* cinchonas being offered. Several hundred packages of the *Ceylon* and *Indian* bark were of old import, and held by second-hand owners. These were nearly all bought in. *African* barks did not sell so readily as at the last sales. There was very little competition, and pile after pile was bought in, with scarcely as much as a bid made for it. On the whole, the result must be described as unsatisfactory, and some slight decline took place in the unit value, which is now barely ¾d. per lb.

The following are the approximate quantities of bark purchased by the principal buyers:—

	Lbs.
Agents for the Frankfort works	61,931
Messrs. Howards & Sons	53,666
Agents for the Brunswick works	44,203
Agents for the American works	33,892
Agents for the Auerbach works	12,590
Agents for the Mannheim and Amsterdam works ..	8,590
Agents for the Paris works	4,760
Sundry druggists and others	73,703
Total quantity of bark sold	296,335
Bought in or withdrawn	260,240
Total quantity of bark offered	556,625

It should be remembered that the quantity of bark bought affords no indication of the amount of sulphate of quinine represented by the purchase.

The following prices were paid for sound bark:—

CEYLON CINCHONA.—*Original*—Red varieties: Dull, dusty, stem chips, 1d.; fair to good bright shavings, 1½d. to 2½d.; dusty root, 1¾d. per lb. Grey stem chips, dull, woody, 1¾d. to 1½d.; fair stem shavings, 2¼d. per lb. Dull yellow stem chips, ¾d. to 1½d. per lb. Hybrid stem shavings, 1½d. to 2¼d.; chips, 1¾d. per lb. *Renewed*—Red varieties: Dull dusty to fair bright stem chips, 1½d. to 2¼d.; fine stem shavings, 3d. to 3½d. per lb. Fair to good bright grey stem chips, 2½d. to 4½d. per lb. Yellow stem chips, dull to fair, 1½d. to 2¾d. per lb. Hybrid stem shavings, 2¾d. to 2¼d.; chips, 2½d. to 2¼d. per lb.

EAST INDIAN CINCHONA.—*Original*—Red varieties: Dull, dusty to fair bright stem and branch chips, 1d. to 1½d.; thin dull woody red quill, 1½d.; fair ditto, 2¾d.; good, but partly broken quill, 3¾d. to 4d.; root, 1¾d. per lb. Grey varieties: Ordinary to good bright quilly stem and branch chips, 1¾d. to 3d.; good chips, 2¾d. to 3¼d.; dusty chips, 1¾d. to 2d. per lb. Yellow varieties: Ordinary dusty to good bright stem and branch chips, 1¾d. to 3d.; shavings, 2¾d. to 3d.; fair broken quill, 3¾d.; damaged ditto, ¾d. to 1½d.; root, 3d. to 4d. per lb. *Renewed*—Dull to fair red chips, 1½d. to 1¾d. per lb. Good, partly quilly, grey chips, 2¼d. to 5d.; fair yellow chips, 3d. to 4½d. per lb.

JAVAN CINCHONA.—The 85 packages of this variety which were offered for sale, all found buyers at 2d. per lb. for fair yellow chips; 2¾d. per lb. for crushed ditto; 2½d. per lb. for root; and 1½d. per lb. for ordinary branch chips.

WEST AFRICAN CINCHONA.—Of 2 parcels offered, the smaller one, consisting of 62 bales, was bought in, and the other of 470 bales (all imported *via* Lisbon) sold at 2½d. to 2¾d. per lb. for nice bright, rather irregular, partly split, silvery-coated *Succirubra* quill, and at 1½d. to 2¼d. per lb. for bold chips and broken quill.

SOUTH AMERICAN CINCHONA.—A parcel of cultivated Bolivian calisaya sold at 4¼d. to 4½d. per lb. for fair partly stout, partly papyry, brown quill, said to analyse 526 per cent. of sulphate of quinine. Damaged lots brought 3¼d. to 3½d. per lb.

A fresh shipment of 21 serons *Huanoco* and *Lexa* barks has just arrived, and will be offered at next week's drug-auctions.

CLOVES.—The improvement in Zanzibar cloves has made further progress since our last report, and, with large sales spot and forward, the market is about ½d. per lb. higher. At auction ordinary dull to good bright sold at 2¾d. to 3½d. per lb., and good picked Penang at 7¼d. to 7¾d. per lb.

CODEIA has recently advanced in price somewhat, and although there are still makers who offer at 10s. per cz., the general quotation is 10s 3d. per oz., and as the principal consuming season is approaching, the higher-priced holders expect to get the figure they are standing out for before long.

COLOCYNTII.—The stock of good *Turkish* colocynth apple continues to decrease, and prices are advancing after every transaction. This week 1s. 11d. per lb. has been paid for fair apple; and to-day the holders require 2s. per lb. *Spanish*, however, can be had in very good quality at 1s., but there are no buyers for it.

CORIANDER-SEED.—Very firmly held at full prices. Good *Mogador* coriander is quoted at 20s. per cwt. on the spot,

while for prompt shipment there are buyers, but no sellers, at 26s. 6d. per cwt. c.i.f. terms.

CREAM OF TARTAR is firmer. *German* powder has to-day been advanced to 67s. per cwt. (a rise of 6d.), and for best white French crystals 64s. 6d. per cwt. is now required.

CUMIN-SEED.—Good *Malta* seed of the new crop has been sold privately this week at 34s. per cwt., London terms. The harvest has been an excellent one.

ERGOT OF RYE.—Unaltered; for new *Spanish* ergot a quotation at 9d. per lb., c.i.f. terms, has been mentioned, but it is hardly a definite figure.

GALLS.—The last business transacted was at the beginning of this week, when 150 cases were sold on the spot at 47s. per cwt.; this shows a firm market, but since then no further transactions are reported. The prices quoted are 50s. per cwt. on the spot; ordinary shape is offering for October–December shipment at 46s. c.i.f. terms, plum shape at 50s. c.i.f. terms.

GINGER.—*Jamaica* ginger sold at auction at rather firmer prices: Fine bold picked, 120s.; fair bleached, 83s.; common to medium dullish, 60s. to 65s.; and Ratoon, at 56s. to 58s. 6d. per cwt. *Cochin*, on the other hand, is lower: Medium to bold cut, 72s. to 75s.; fair washed rough, 43s.; rough and ends, 34s. 6d. to 39s. per cwt.

GLYCERINE.—There have been considerable sales of crude glycerine, and the market for that variety has decidedly improved; best double-distilled, s.g. 1.260, however, is still quoted at 43s. per cwt., although that price might, perhaps, be shaded from second-hand holders.

HEAVY CHEMICALS.—The following are the present manufacturers' quotations for some of the principal heavy chemicals f.o.b. Liverpool, in the usual packages. In some cases the figures can be shaded from second-hand holders:—

Ammonia alkali 58 per cent., 37. 10s. per ton net.
Bicarbonate of soda, 67. 15s. per ton, discount 2½ per cent. per ton net.
Bleaching-powder, soft woods, 77. 10s. per ton net.
" " hard woods, 77. 15s. per ton net.
Caustic soda, 70 per cent., 87. 5s. to 87. 15s. per ton net.
" 60 per cent. (white), 77. 5s. to 77. 15s. per ton net.
" (cream), 60 per cent., 77. to 77. 10s. per ton net.
Chlorate of soda, 77d. per lb., discount 5 per cent.
" baryta, 10½d. per lb., discount 5 per cent.
" potash, 6d. to 6½d. per lb., discount 5 per cent.
Crystal carbonate, 67. 7s. 6d. per ton net.
Chloride of calcium, 27. 5s. per ton net.
" magnesium, 27. 10s. per ton net.
Soda ash, caustic, 57 to 58 per cent., 47. 5s. per ton net.
" carbonate, 58 per cent., Leblanc quality, 47. per ton net.
Soda crystals, in usual barrels, 27. 12s. 6d. per ton, discount 5 per cent.
Sulphate of alumina, 57. to 57. 10s. per ton net.

HYPOSULPHITE OF SODA—The market is very firm, from 77. 10s. to 87. per ton being asked for kegs. The importers declare that there is no prospect of lower prices for future delivery, the makers having as many orders in hand as they can cope with. The consumption of the article appears to be increasing rapidly.

IPECACUANHA—Since the auctions a considerable portion of the Colombian (Cartagena) root, which sold cheaply at 2s. 9d., has been resold at 3s. per lb., and higher prices are generally asked for this variety. In Brazilian root there has also been some business at very firm rates.

JABORANDI.—A new parcel of about 20 bales is due, and may probably be in the market next week; nothing is yet known of the quality.

MENTHOL.—Tending lower. On the spot 15s. 6d. per lb. would be accepted, but it is difficult to find buyers at the price. For shipment the quotations are: Near at hand, 12s. 6d. to 13s. per lb., c.i.f.; December shipment, 12s. per lb., c.i.f.

MORPHIA.—Drooping, in sympathy with opium. The general list price from the makers is 4s. per oz. for powder, but we believe that one of them is prepared to cut that figure very slightly.

MERCURIALS.—Immediately after the advance in quicksilver, reported elsewhere, the manufacturers of mercurials

raised the price of these preparations 1d. per lb. all round. Their quotations are now as follows:—

	Up to 56 lb. of any one sort	56 to 224 lb.	224 to 560 lb.
	s. d.	s. d.	s. d.
Calomel per lb.	2 9	2 8	2 7
Corrosive sub. "	2 5	2 4	2 3
Red precipitate "	3 0	2 11	2 10
" " levig. "	3 0	2 11	2 10
White " "	3 0	2 11	2 10
Persulphate "	2 1	2 0	1 11
Sulph. with sulphur "	2 0	1 11	1 10
Mercury with chalk "	1 0	1 0	1 0

MUSK.—Large sales have been made privately this week, at very firm prices; *Tonquin* pods of the first pile, old-fashioned, at 47s. per oz. The transactions amount probably to about 40 caddies.

OIL (COD-LIVER).—The stock of good Norwegian oil is believed to have diminished rather rapidly of late, and, as the bulk of what remains is in strong hands, an improvement, when colder weather sets in, is looked for in many quarters. The prices asked for best non-congealing Lofoden oil vary, according to the views of the holder, from 90s. to 110s. per barrel.

OILS (ESSENTIAL).—The principal feature in the essential oil market this week has been a kind of "run" on oil of *cassia*, the spot quotation of which has advanced from 3s. 2d. or 3s. 3d. per lb., at which it stood last Thursday, to 3s. 8d. per lb. Some holders will not sell, they say, below 3s. 9d. per lb., and we hear that bids of 3s. 8d. have been rejected. For shipment 3s. 2d. per lb. c.i.f. was the quotation until a few days ago, but at present there is nothing offering from first hands. On 'Change to-day 20 cases sold at 3s. 6d. per lb., and afterwards 3s. 8d. per lb. was reported paid. The low quotations of American oil of *peppermint* appear to have attracted attention. Several buyers have come into the market, and the spot price has now risen to 10s. 6d. per lb., at which, however, only a few cases are offered. For October shipment 10s. 3d. per lb. c.i.f. is the asking-price. Mail reports from the States, dated September 8, say that large offerings of new crop have lowered the price still further, and cases can now be had at \$2.25 to \$2.30, as to quantity. Wayne County in tins offers at \$1.75, and Western at \$1.60. *Spearmint* oil offers at \$1.50, though \$1.25 might buy. *Star-anise* oil has quickly recovered from its little depression of last week. There are no longer any sellers of oil on the spot at 6s. 10d. per lb., 7s., in fact, has again been paid. For October–December shipment 7s. has been paid. The rise in exchange is mainly responsible for this advance. Nothing appears to be on offer for early shipment. *Lemon-grass* oil is quoted on the spot at 1½d. per oz., and *Citronella* at 10½d. per lb. for fair native brands. A parcel of *Cajuput* oil was sold at Amsterdam recently at 115c. (= 1s. 11d.) per bottle, local market terms.

OPIUM.—The only business reported in London this week are small transactions, aggregating, maybe, 10 or 15 cases, of *Soft shipping* opium (fine at 11s. and good at 10s. 6d. per lb.), and of fine selected *Druggists'* kinds at 10s. per lb. In *Persian* opium no business has been done, holders asking 11s. 6d. and buyers offering, at the most, 11s. per lb. for fine quality. Reports from Smyrna, dated September 8, are as follows:— "Our market closes very firm, with buyers for all descriptions of tale quale, from 8s. to 8s. 6d., according to quality, but sellers are sticking out for higher figures. The reports concerning the movement in London for Persian opium have had the effect of strengthening our market. The arrivals to date are 1,190 cases, against 490 last year."

ORRIS.—*Florentine* root of the new crop is being quoted at 60s. per cwt. f.o.b. London (selected quality). *Venese* orris, which is gathered somewhat later than the *Florentine* variety, is quoted at 58s. per cwt. f.o.b. Trieste for new crop. Old Verona root has been sold on the spot at 41s. to 42s. per cwt. *Mogador* orris is exceedingly scarce: good quality cannot be had below 45s. per cwt., which is an excessive figure in comparison with the price of Italian kinds.

OTTO OF ROSE.—The new season's price has not yet been fixed, and for the moment the leading brand is still quoted at 36s. 9d. per oz. f.o.b. Constantinople. It is expected that the new quotation will be about 3s. 6d. per oz. below that figure. A Bulgarian report (dated September 1/13) states that the otto business in Kezanlik has been very quiet, as the large Constantinople houses are not willing to buy at figures which are acceptable to the local holders.

PHENACETIN.—The price quoted in our last issue is not correct. One of the makers has recently been trying to undersell his competitors, and offers at 8s. 9d. per lb., though perhaps 8s. 6d. might be taken. It is thought, however, that with the new year there may be an alteration in the position of the article, as makers will not sell farther ahead than the end of December.

PRUSSIAN POTASH.—Yellow English prussiate offers at 10½d. to 10¾d. per lb.

QUICKSILVER.—On Tuesday the principal importers raised their price for mercury from 6l. 10s., at which it had been exceedingly firm for several days, to 6l. 15s. per bottle. It is reported that several thousand hottles were sold at the lower figure before the price was advanced. The market closes very hard, second-hand holders not offering below 6l. 12s. per bottle.

QUININE.—The market is dragging, and although 12d. per oz. is the nominal quotation for second-hand German hulk, it might be possible, perhaps, to buy at 11¾d. per oz. There is a report that 10,000 oz. *Auerbach* quinine sold yesterday at 11¾d. per oz., which would be a very fair price, but we have not been able to get this rumour confirmed. At the meeting of the Soekaboemi (Java) Agricultural Association on July 14 last (the same gathering at which occurred the poetic incident to which reference is made on another page), some interesting statements were made concerning the quinine-syndicate. In the course of a debate on the question whether the Association should join the Union for the Promotion of the Interests of Cinchona-Cultivation, recently established in Amsterdam, a planter who had recently returned from Europe asserted that no good could come from any reduction of the exports. The coalition of the German quinine-makers, he observed, was too powerful to be overcome by the planters. The stock of bark in Europe was sufficient to supply the manufacturers' requirements for two years, and until that was cleared off the growers were powerless. A capital of at least 150,000l. would be required to keep a planters' syndicate going, and no such amount could be brought together by the planting interest. The German system of quinine-making was totally different from, and much superior to, that followed by the French and American factories. The Milan quinine-works also used the German system, but an agreement had been made between that factory and the German syndicate, by virtue of which the German makers paid an annual royalty to the Italian factory on condition that it should cease working. The President of the Association pointed out that however anxious all the Java planters might be to improve the price of bark, it was not they, but the directors of the great cinchona-companies, who had their headquarters in Amsterdam, who could take effective action. Some time ago the Association agreed to restrict the exports of cinchona, but no sooner was this decision taken than a few planters outside the Association commenced to increase their own exports, thus nullifying the Association's object. Unless the whole of the Java plantations, without exception, agreed upon common action, nothing could be done. Another point of danger to Java planters lay in the decline of the exchange-value of the rupee. Java has a gold standard, and cannot profit on exchange, but the Ceylon planters now receive about 50 per cent. more rupees for every lb. worth of bark sold in Europe than they did in the first years of their cinchona industry. On the other hand wages are the same as they were then, and the Java growers are therefore, at present, seriously handicapped against their Ceylon colleagues.

RHUBARB.—The arrivals have been rather heavy lately—viz., about 250 cases, half of which is *Canton* and half good *High-dried*. No more *Shensi* has arrived, but there have been re-sales of this variety at last drug-sales at improved rates.

SENEGA-ROOT.—New York advices, dated September 8, say that there has been some demand for export, but buyers' views were too low. Spot price is 32c. for *Minnesota* and 31½c. for *Manitoba*. From the West 34c. is quoted for select yellow *Minnesota*. *Southern* is 45c. Stray lots may be had at 40c. from the country, while 43c. is demanded by the largest holder in Baltimore.

STAR-ANISE.—Quiet. On the spot 62s. 6d. per cwt. will buy fair genuine *Chinese* seeds, while for shipment, September-October, 62s. per cwt., c.i.f., is asked.

SULPHATE OF COPPER.—The market has been very brisk and prices have advanced, partly owing to the rise in copper-metal and partly because the present is the time when large contracts are usually made for the Southern European markets. The best brands are quoted in London at 15l. 5s. on the spot and 15l. 10s. for forward delivery, in Liverpool at from 15l. on the spot, and 15l. 10s. for delivery f.o.b.

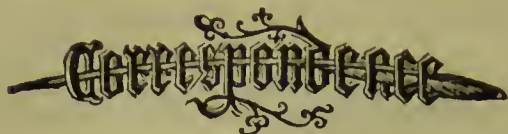
TEA.—The *Assam* market has been severely tested this week with heavy sales, and has borne the trial well as regards prices. On Monday the auctions lasted from noon till past 5 o'clock, and showed remarkably steady rates for all grades, and while here and there prices were not quite so stiff on Wednesday, the result of the sales for the week shows that Indians are wanted, and that the recent advance was fully justified. A good trade has been done in the country, and Irish buyers are now getting an assortment of useful broken Pekoes. *Ceylon* sales are lighter and likely to continue so for a while, and very full prices were realised, Tuesday's sale going off rapidly with plenty of competition. In *Congou* teas fine Kintucks and Keemuns continue to advance, showing in many cases a rise of from 4d. to 6d. per lb. from original opening quotations. Capers are steady at recent low rates.

TONCA-BEANS.—In New York, on September 8, prime new *Angostura* beans could scarcely be had below \$1.60, though on some lots \$1.55 might be accepted by first hands. A lot of 800 lbs. has been sold on private terms, thought to be a shade below \$1.50. Prime old *Angosturas* are selling up to \$1.85.

TURMERIC.—At auction, on Tuesday, 220 bags *Madras* sold at firm prices: Fair yellow, but wormy, finger, 12s. 9d. to 13s.; bulbs, 9s. 9d. per cwt. Eighty bags *Cochin* root sold at 8s. to 8s. 3d. per cwt. for good split bulbs.

WAX (CARNAUBA).—There is not much offering, and prices remain firm; ordinary dark and grey mixed, from 65s. to 80s.; fair yellow, mixed to fine pale, from 90s. to 100s. per cwt.

DENTISTRY IN JAPAN.—"Gentlemen, we must keep pegging away," said Lincoln on an historic occasion, and Old Abe's maxim appears to be acted upon with the utmost thoroughness in Japanese dentistry. No formidable array of forceps and elevators are required by the Japanese dentist. The only instruments he uses are those provided by Nature—his fingers. This is how he acquires his dexterity:—In a board of soft wood holes are drilled, and in the holes pegs are inserted loosely. The board is laid on the floor, and the apprentice tries to pull out every peg perpendicularly, without in the least disturbing the position of the board, using the thumb and forefinger of the right hand. When able to do this the pegs are inserted tighter, the thumb and forefinger gaining strength and dexterity in manipulation as he keeps on practising. Having perfected himself at the pine-board, an oak-board is substituted, the pegs being driven in tightly. There he practises for weeks and months, until finally the oak-pegs succumb to the skill and power of his fingers. The third and last term comprises the extracting of maple-pegs very tightly fastened into a maple block. Passing the required examination at this block, he is graduated and sent forth to try and pull at human pegs. He there takes a position similar to the one the dentist assumes, holds the jaw and keeps the mouth open with the left hand, whilst with the two fingers of his right he passes into the mouth and extracts, if necessary, five to seven a minute. The Japanese force arsenious acid, in powder, between the tooth and gum several weeks previously. It starts a local necrosis, which aids the peg-puller in removing the teeth readily with the fingers.



Memoranda for Correspondents.

In letters for publication correspondents are requested to express their views as concisely as possible.

Correspondents should write on one side of the paper only, and devote a separate piece of paper to each subject of inquiry.

The name and address of the writer should accompany all communications with, if desired, a distinctive nom-de-plume.

A Mortar Inscription.

A correspondent, of Wellington, Salop, sends us an inscription from an old brass mortar, with a request for an interpretation. We have submitted the inscription to Mr. Joseph Ince, who is an expert on antique matters pharmaceutical, and he sends us the following, which we print together with a facsimile of the original inscription:—



"The key to the cryptogram is the monogram which you will find to be WY (reversed), H (chief letter). Take these out, and there remains ADMISCO + ANKY. Connect the whole, and you have ADMISCO. W. Y. HANKY. W may be William, Walter, or other Christian name; Y most probably a family name. A little reference to a list would give it exactly. Putting OSYC together is a blind to lead one to take out HYOSCYAMI, but W is not a Latin letter, and no Latin word ends in KY. These therefore belong to an English word."

B.P. Preparations from Wholesale Houses.

SIR,—There is an ever-increasing tendency in the wholesale trade to send the retail trader "special" preparations instead of those of the British Pharmacopœia, unless the B.P. preparations are definitely ordered.

Thus, one firm, if ext. cascar. sagrada liq. be ordered, sends an extract in the preparation of which the bark has been exhausted in a different manner to that of the B.P., the extract thus prepared being less miscible with water, but, it is claimed, more active (certainly more expensive!). Another firm will send mist. sennæ co of different strength to the B.P. Nearly all send spt. æth. nit. 850 instead of 840–845.

The crux of the matter lies in the fact that it is the custom of the wholesale trade to send B.P. articles unless otherwise ordered; but each firm arbitrarily makes certain exceptions to this rule, and these exceptions differ in the case of each individual firm.

Now, sir, are not the wholesale traders, like the retail, obliged, under the Food and Drugs Act, to supply all medicines and their compounds included in the British Pharmacopœia of the same strength and preparation as there directed, unless expressly requested to the contrary?

If the Act does not touch the wholesale trade, cannot the opinion of the retail trade be brought to bear on the wholesale, so that this anomalous state of things may be stopped?

This is no imaginary grievance. I have recently had a very annoying experience in consequence of a "special" preparation having been sent to me when the B.P. was urgently needed for a medical client. No doubt many of your readers can tell of similar vexations.

If the entire wholesale trade would adopt the rule of

always (without any exception) sending B.P. preparations unless expressly ordered otherwise, it would, I feel sure, be more satisfactory for all. Yours faithfully,
Cambridge. L. A. J. HUTCHIN.

[The circumstances indicated are, no doubt, annoying occasionally, but the remedy is in the hands of the retailer. He need only add the words "B.P." to his order, and we should think no respectable wholesale house would then send a special preparation. In case anyone should ignore this specific instruction, the return of the stuff would be quite in order. There is nothing except the difficulty of fulfilling the necessary formalities which prevents the Sale of Food and Drugs Act from being applicable to wholesale as well as to retail traders. In the cases named by our correspondent, however, we presume the label would be a sufficient defence.—ED. C. & D.]—

The Atomic Weight of Carbon.

SIR,—I must apologise for asking your permission again to trespass on your space on a matter which, I fancy, is almost outside the pale of discussion. I refer to the so-called "rectification" of the atomic weight of carbon by Mr. J. A. Wanklyn. I would, first, ask your readers to examine the very slender evidence which Mr. Wanklyn offers in order to support this impossible theory. In the first place, there is the vapour-density of a number of fractions of commercial paraffin oil, or kerosene. I need hardly point out the impossibility of separating a mixture of twenty-four volatile liquids, by fractional distillation, in a state of purity sufficient to enable their formulae to be determined. I do not bring up the possibility of partial dissociation of the various isomeric compounds which do occur in kerosene, but which Mr. Wanklyn does not note. For a ternary or quaternary hydrocarbon, of much higher molecular weight than a normal one, with the same boiling-point, at once vitiates the whole of the results obtained by Mr. Wanklyn; and these isomeric bodies, which prevent the possibility of separating the liquid by fractionation, occur in all paraffins to a large extent. For example, there are five known hexanes— C_6H_{14} —whose boiling-points vary from 43° to 71° . Hence, since similar figures hold good for other hydrocarbons, the impossibility of getting all the C_6H_{14} , or C_8H_{18} , &c., into one fraction. On this slender evidence—which I think is no evidence at all—Mr. Wanklyn calmly suggests overthrowing the enormous mass of evidence adduced by the world's famous chemists for years past. What becomes of the theories of stereo-chemistry, of saturated compounds, of the existence of CH_4 , and the non-existence of CH_3 ? Why does C_2H_2 take up four atoms of chlorine?

The following boiling-points will show that in no single case did Mr. Wanklyn isolate a pure normal hydrocarbon (they are from Kraft's classical work on the paraffins):—

Hexane	69°
Heptane	98°
Octane	124°
Nonane	150°
Decane	173°
Undecane	195°
Dodecane	214°
Tridecane	231°
Tetradecane	253°
Pentadecane	271°

No chemist yet has been able to find more than ten normal paraffins whose boiling-points lie between the limits of 69° and 288° . Mr. Wanklyn finds twenty-four. This is, I fancy, sufficient proof as to the mixtures he has found. Of course, the evidence that carbon has an atomic weight of 12, and is a tetrad, can scarcely be mentioned here, as it would require several years of the *C. & D.* to print it.

40 Craven Street, W.C.

ERNEST J. PARRY.

Company Pharmacy in Ireland.

SIR,—Mr. Brunker expresses with admirable clearness that interpretation of the Irish Pharmacy Act which I have tried to defend, and which I think generally prevails in Ireland. Apparently nothing is to be gained by discussing the matter further in your pages, but as I understand that the

question will be brought up at the general meeting of the Society on October 1, may I hope that Mr. Brunker and other gentlemen, who too seldom attend these meetings, will be present to give the members the benefit of their counsel on that occasion.

Might I also venture to suggest the propriety of the Council of the Society obtaining a counsel's opinion on the point at issue—viz., whether limited liability companies may practise pharmacy in Ireland—before the general meeting, in order that if the meeting should suggest to the Council any proceedings they may do so with a full knowledge of the probable result of such proceedings.

Yours truly,
19 North Earl Street, Dublin. J. C. MCWALTER.

DISPENSING NOTES.

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the under-mentioned topics.

Myrrh with Acids in a Gargle.

124/21. *Gargle* submits the following:—

Pot. chlorat.	..	..	..	..	..	℥j.
Ae. mur. dil.	..	..	..	..	..	℥iss.
Tr. myrrh.	..	..	..	..	..	℥iv.
Aq. dest. ad	..	..	..	..	..	℥iv.

M.

This can be made into a not inelegant gargle if dispensed with tincture of quillaia added to the solution of chlorate of potash along with the tincture of myrrh. Shake sharply, then add the acid. Dispense with a "Shake the bottle." "Gargle" will find references to emulsions at page 184, "The Art of Dispensing."

Lanoline and Glycerine Emulsion.

128/64. *A. C. B.* asks the best method of dispensing the following preparation:—

Tinet. jaborandi	..	..	..	..	..	℥ss.
Adipi lane	..	..	..	..	..	℥ss.
Glycerini	..	..	..	..	..	℥iss.

Ft. liniment.

It is difficult, if not impossible, to obtain a presentable preparation when dispensed as written. The best method to adopt is to add a little powdered soap in the proportion of about 3 grs. to the drachm of lanoline. See also *C. & D.*, January 31, 1891, page 160, and April 7, 1894, page 480.

Potas. Acet. and Dec. Scopar.

SIR.—I had occasion to make up the following prescription, and after it had stood an hour or two it gradually turned black:—

Pot. acet.	..	..	..	..	..	℥ij.
Spt. am. arom.	..	..	..	..	..	℥ij.
Pot. nit.	..	..	..	..	..	ss.
Dec. scoparii ad	..	..	..	..	..	℥xvj.

Then I made it up seven or eight different ways, using dec. scoparii conc., dec. scoparii simple (fresh), and sent out for another sample of dec. scoparii conc; I also used three different kinds of spt. am. arom., all with the same result more or less, no matter what order I mixed them in.

Can you enlighten me as to the cause of the above, and if there is any way of mixing them by which the precipitate would not occur, or, if so, would not darken?

September 12. R. A. W. (127/68)

[Potass. acetat. nearly always contains a little iron, and the black colour is due to interaction between the iron and the tannin in the dec. scoparii.]

131/13. *Specs.*—We do not think that an examiner would pass your creosote pills made with wax. There is no difficulty in massing creosote with curd-soap and liquorice-powder.

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," Atpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY.

128/24. *J. H.*—Indentures are not a condition precedent to admission to the Minor examination.

128/72. *G. F. F.*—A fancy name can be registered as a trade-mark no matter how long it has been in use, if the Registrar regards it as original, and within the official restrictions.

130/3. *Timeo.*—Butyl chloral is not, in our opinion, a poison within the meaning of the Pharmacy Act.

130/60. *Rhei.*—Tincture of digitalis is not a poison within the meaning of the Pharmacy Act; tincture of cantharides is. Kay's essence of linseed admittedly contains poison, but the makers claim that as a "patent medicine" it can be sold by anybody, and a year ago they got a magisterial decision in Dublin under the Irish Pharmacy Act confirming their claim. The question has not been tried under the British Pharmacy Act.

130/50. *Stereo.*—The law as it has been interpreted by the judges is that a duly registered company may describe itself as a chemist and druggist. The law knows nothing about bogus companies. If the company is legally constituted and registered, it is as fully entitled to whatever privileges registration may convey as the biggest organisation known to the Stock Exchange. But no company can satisfactorily trade as a chemist and druggist without employing a qualified chemist and druggist, because if any unqualified employé should sell a poison he renders himself liable to a penalty. So that if you know that a bogus company, as you call it, is selling poisons by unqualified assistants, give information to the Pharmaceutical Society.

132/21. *Swallow*—We do not think it is doubtful that a month's notice is the custom of the trade. The position of an assistant engaged for a fortnight, and afterwards kept on, with no stipulation in regard to his claim to a month's notice, would depend on the circumstances. Was he so kept on for a day or two or for a year or two? And how was the original engagement expressed?

MISCELLANEOUS INQUIRIES.

Back numbers containing formulæ, educational or other specific information can be obtained from the Publisher.

N.B.—We destroy anonymous letters. We do not answer queries of the kind here dealt with by post. We ask that separate queries shall be written on separate sheets of paper.

126/2. *E*—Ung. Balsam Peru:—

Ung. cetacei	..	..	..	..	..	℥j.
Bals. Peru	..	..	..	..	..	℥j.

Melt together on a water-bath, stir for a few minutes, then allow to settle, and pour off the clear portion.

122/23. *Subscriber.*—Toothache-liniment—See under "Toothache-specific," page 382, DIARY, 1894. A cheaper one for wholesale purposes would be—

	Oz.
Menthol	.. .. 1
Methylated chloroform	.. .. 1
Oil of cloves	.. .. ½
Spirit	.. .. 4

Dissolve the menthol in the spirit, add the chloroform and oil of cloves.

This may be rubbed into the face with the fingers, or a few drops may be placed on cotton-wool and inserted in the tooth.

120/53. *Rohani*.—Ungt. Sambuci Viride:—

Ol. viridis	3 lbs.
Cere flav.	10 oz.

Melt, stirring occasionally until cold.

True Ol. Viride is rather a complex preparation, consisting of olive oil in which the fresh leaves of laurel, rue, marjoram, absinthium, and chamomile are boiled, pressed out, and allowed to settle. Another formula is:—

	Parts
Adips.	8
Fol. sambuci	4
Sevi	1

Boil until the leaves are crisp; strain; place on a slow fire, and stir gently until it becomes a beautiful green colour.

Simple ointment, it is said, coloured with verdigris, has been substituted for it, but would not be ungt. sambuci viride, although it might be sold as a green ointment. It would not be logical to sell Tr. Benzoin Co. Meth., but as a Liniment for Veterinary Purposes you might submit this formula to the Board of Inland Revenue:—A tincture of benzoin made with methylated spirit, 1 oz.; solution of coal tar, $\frac{1}{2}$ oz.; glycerine, 2 oz.; acetate of lead, $\frac{1}{2}$ oz.; water to 1 pint. The acetate to be dissolved in the water with sufficient acetic acid to make a clear solution; then add coal tar, benzoin tincture, and glycerine, and shake well. Without the benzoin this will make a useful veterinary lotion.

121/33 *Vici*.—Weed-killer.—Your formula seems a useful one, if used 1 to 25 of water, and would, at least, be worth a trial. We should, however, advise the omission of the HCl. "Vici" would be obliged if any reader who has used a similar preparation would give his experience. His formula is:—

Acid. carbolic. com.	4 oz.
Paris green	$\frac{1}{2}$ "
White arsenic	8 "
Hydrochloric acid	16 "
Boiling water	4 gals.

Formulae for concentrated Weed-killers are given at page 369, March 10, 1894, and pages 526, 640, 637, 775 of vol. xlii.

122/13. *G. E.*—The Blue Mark on Nose, due to a Fall upon a cinder-path, had better be left alone. Ethylate of sodium (which must be freshly made, and colourless) would possibly make a new sore; it would not be advisable to use it unless in the hands and by the advice of a properly qualified surgeon.

121/5. *C. R. P.*—The Paste used by Dentists to Destroy the Nerve of a Tooth sometimes consists of arsenic, morphia, and creasote or carbolic acid; this, in unskilled hands, or under certain conditions of inflammation of the pulp, may necessitate special preparation of the cavity, and even then might set up serious complications. This being the case, the dentist may prefer to see you personally rather than write you, especially if you have told him you have been using remedies such as cocaine, or cocaine and carbolic acid. You will find an application such as this extremely useful:—

Menthol	3j.
Carbolic acid	3j.
Cocaine (pure)	3ss.
Rectified spirit	3ij.
Rub up together, and add—	
Collodion (meth.) to	3j.
Mix.	

125/4. *Lux*.—The Chingo in Colour of Teething-powders kept in powder-paper may be due to gradual oxidation, or to chlorine fumes from packets of chloride of lime kept near or under the drawer.

126/69. *Erin*.—Wood-killer.—See *C. & D.*, March 10, 1894, page 369. See also reply to "Vici," above.

124/45. *L. S. B.*—The Roup-powders are very much alike—Nos. 1 and 3 being probably the same—and seem to consist of fenugreek, gentian, and ginger; No. 2, no gentian, and a trace of Cayenne pepper. The treatment is given at page 247 in "Veterinary Counter Practice."

126/33. *Industry*.—The Seum Formod upon Blacking after a Fortnight is due to the method of mixing. Add sulphuric acid to bone-black, allow effervescence due to carbonate of lime to subside, stirring occasionally, then add oil and other ingredients. By adding oil to the black before the acid, you delay the action of the acid upon the carbonate which is usually present in bone-black. The chrome-ink being so pale in colour is due to your using bichromate instead of the neutral chromate, of potash; both "Rungo" and "Gobel," whose formulæ are appended, recommend the neutral chromate; they also use extract of logwood, but apparently for convenience:—

"CHROME INK"—RUNGE.

	Parts
Solid extract of logwood	16
(Or logwood chips, 1 part, boiled in water so as to form 8 parts of decoction)	
Water	1,000
Mix, and add—	
Yellow chromate of potash	1 (also dissolved in water)

"GOBEL."

	Parts
Extract of logwood	24
Water	1,000
Yellow chromate	2

M.S.A.

Should the yellow chromate not be at hand, add an equal quantity of bicarbonate of potash to either formula.

124/39. *W. A. S.*—Books on Agriculture.—For general information we should recommend Webb's "Manuals of Agriculture," elementary and advanced, published by Longmans at 2s. 6d. each; and for agricultural analytical work, Frankland's book, published by Macmillan, price 7s. 6d.

124/72. *Bruce*.—The Lighting of a Country Pharmacy with a Substitute for Gas.—You might use either paraffin or the electric light; but this is hardly in our line. For Business Transfers, see advertisement columns.

121/15. *W. P.*—There is a Glove-cleaning Paste already in the market, which seems to contain curd-soap, although under a name that would suggest quillaia as a probable base. Try the following Benzene Jelly:—

	Parts
White Castile soap	12
Ammonia water	4
Benzine	65
Water	20

Dissolve the soap in the water by the aid of heat, remove from the fire and add the ammonia water; stir until nearly ready to set, and then incorporate the benzine.

To Mend Broken Mortars or Pestles, use a thick paste of either calce or litharge with glycerine. It forms an excellent cement, although rather long in drying.

126/53. *S. S. (Smyrna)*.—Bay Rhum:—

Ol. myrcine acris	3j.
Ol. anrant.	Mxx.
Ol. piment.	Mxxx.
Alcohol	Olvss.
Aque	Oiliss.

The alcohol should be 94 per cent., and the 16-oz. pint is intended. The formula is from the U. S. P.

126/46. *A. K. Q.*—Oxymol Ipecac.—The formula for this is the same as for oxymel scilla, using acetum ipecac. in place of the vinegar of squill.

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FOR



SUNBURN, INSECT BITES,

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SKIN IRRITATION.

$1/1\frac{1}{2}$, $1/9$, $3/6$, and $6/-$ per Box.

VINOLIA SOAP. Premier, 4d.; Floral, 6d.; Balsamic, 8d.; Toilet (Otto), 10d.; and Vestal, 2s. 6d.

VINOLIA POWDER (for Redness, Roughness), 1s., 1s. 9d.

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Price 3s., in 1-oz. stoppered bottles. Dose—m x. to ʒj.

THYROIDINE, containing the active principle of the Thyroid Glands of the sheep, 4 grains equal to about one-eighth of a fresh gland. Also PILLS and TABLETS, each containing a dose of Thyroidine.

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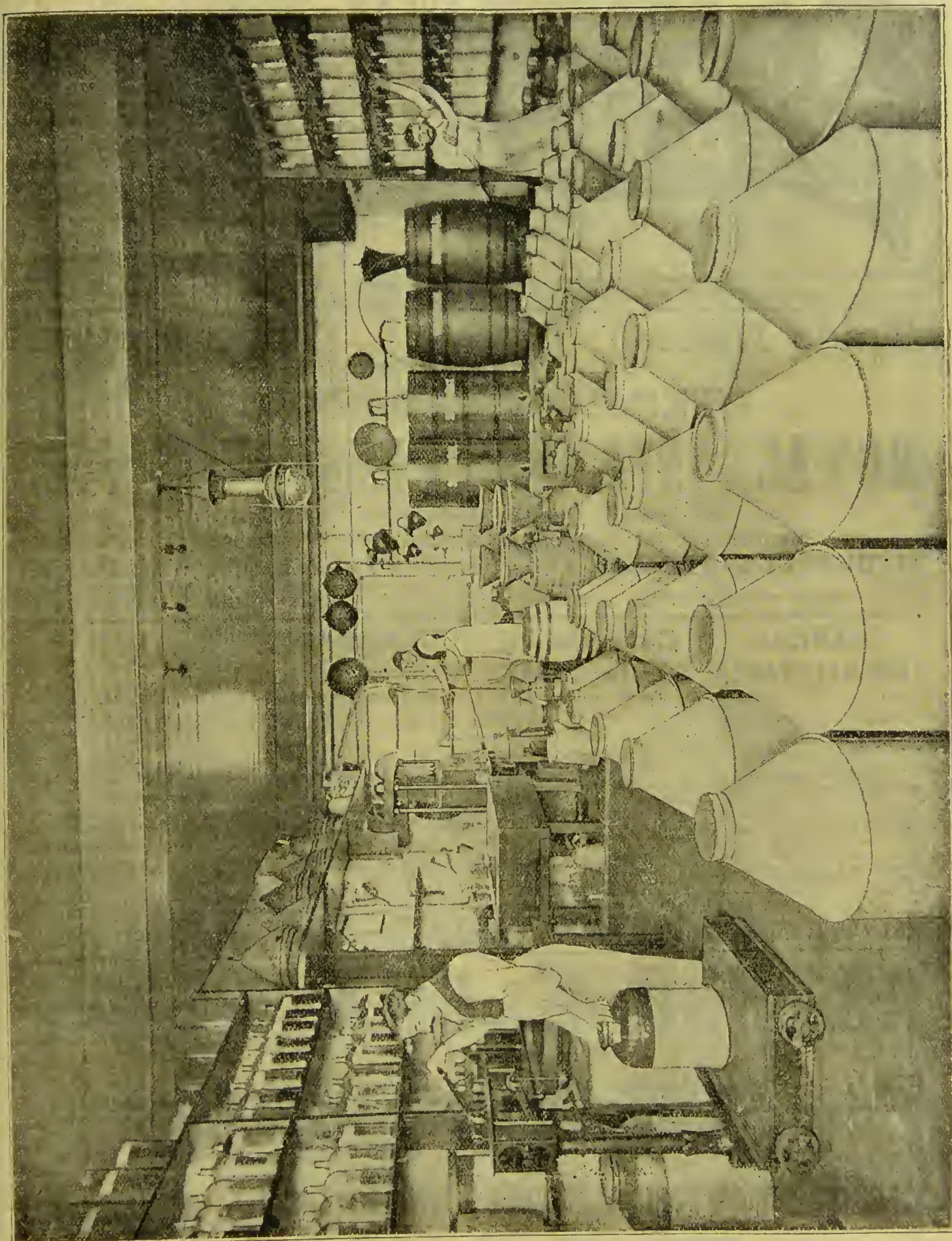
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Care should be taken, when the *Fluid Cascara Aromatic*, P., D. & Co., is desired, to so specify, otherwise some other product may be supplied.

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CAUTION.—Care must be taken to keep the bottle tightly corked and in a dry place, remembering the great affinity of glycerin for the moisture of the atmosphere. When proper precautions are observed, the Suppositories will keep indefinitely.

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4/6..Alcool de Menthe Riebles	41/6	4/6..Capsules Matieo	35/	2/3..Guyot's Liq. Gondron	18/	2/9..Rabuteau's Dragées Ferrug.	24/6
2/9.. Ditto	21/	4/6.. " Mathey Caylus	35/	9/..Laville's Gout Tincture	81/	7/.. " Elixir Ferrug.	65/
2/9..Anbergier's Syrup	27/	4/6..Chaesaling's Whic	39/	9/.. " Pills	78/	2/9.. " Syrup Ferrug.	24/8
1/9.. " Pâte	15/	2/9.. " Pills	24/	1/11 Papier Fayard	6/9	4/..Racabout des Arabes	31/
6/6..Bay Rum	57/	4/6..Clin'e Dragées Bromide Cam.	45/	2/3.. Ditto	13/6	4/6..Reynal's Bougies	38/
3/6.. Ditto	31/	5/..Eau de Botot (Genuine)	40/	2/3..Papier Fruneau	14/6	2/9..Ricord'e Injection	24/
2/..Belloc's Charcoal	15/	3/.. Ditto	24/	4/.. Ditto	24/6	9/.. " Capsules	36/
1/9.. " Lozenges	15/	2/..Esple's Cigarettes	13/6	1/9..Pâte d'Aubergier	15/	9/.. " Syrup	90/; 4/6, 42/
4/6..Blancard's Pills	32/	4/6..Elixir de Coea (Mariani)	48/	1/9.. " de Berthé	15/6	1/6..Star Paper	11/
2/6.. Ditto	18/	2/9..Flou's Syrup	23/	2/9.. " de Coea Mariani	25/	1/9..Vallet's Pills	14/8
4/6..Brou's Injection	27/	Gayetty's Paper	48/	1/9.. " de George	14/6	2/9.. " Ditto	23/
4/6..Bugeaud's Wine	35/	2/3..Granules Arson. Acid	13/6	1/11 " Ditto	9/	4/6..Veloutine (White, Pnk, Oim.)	23/
3/6..Bully's Vinegar	30/	2/9.. " Iron	14/5	1/6.. " de Nafé	13/6	3/6.. Ditto	22/
2/.. Ditto	14/6	2/9.. " Soda	15/4	1/9.. " Regnanid	14/6	2/9..Vichot's Trochisques	22/
4/6..Candé's (Lait Antéphillic.)	36/	2/9..Grimault's Syrup Lime	24/	7/..Pierlot's Valerian	60/	4/6..Vlu Mariani	36/
4/6..Capsules Bromide Camph.	45/						

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IMPORTANT NOTICE TO CHEMISTS.

This preparation does not contain any poison which is included in Part 1, Schedule A of the Poisons Act; therefore the signature of the purchaser is not required.

Chemists who study their own reputations should never be thoughtless enough to sell an imitation Chlorodyne.

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Schering's Glycero-phosphates of Lime, Soda, and Chinin.

These salts have distinctive physical forms of perfect chemical composition. The difficulty of the preparation of these compounds, which are the subject of Mr. A. Robin's paper on the treatment of neurasthenia, has prompted Messrs. Schering to devote special attention to their manufacture in absolute purity.

Schering's Piperazine

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Schering's Phencoll Hydrochlor.

is a soluble Phenacetine prepared by the interaction of Phenetidine and glycooll amidoacetic acid.

Satisfactory results are recorded from its employment as an anti-febrile in phthisis and other pulmonary affections, in ileotyphus, &c. (Herzog, von Mering, Hertel, Jacobi, Cohnheim), as an anti-rheumatic, especially in acute forms (Hertel, Cohnheim), and as an anti-neuralgia (Herzog, Aronson, Cohnheim), as a specific in malarial fever (V. Dall'Olio, Albertoni, Prati, Novi, Venturini, Cucco, G. Colosanti, G. Geronzi).

Given in 8-grain doses when the febrile temperature fluctuates between 9° and 40.5° , a reduction of about 2° is obtained, accompanied by more or less profuse perspiration; in acute rheumatism the same dose was given three to seven times a day; a very rapid effect was produced upon the pain and swelling.

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(is Phenocoll salicylate) will be found, in its action, fairly identical to the hydrochloride, and is preferred by some authorities. Dose is the same.

Schering's Rubidium Iodide

is an improved form of Iodide and substitute for Iodide of Potassium. It will be remembered that rubidium is one of the two rarer metals, rubidium and cesium, discovered by Bunsen. The molecular weights of the metals are—Sodium 23, Potassium 39, and Rubidium 85.

The logic capable of being drawn from these favourable conditions, for an improved Iodide salt of the Rubidium base, will at once recur to the mind of the physiologist, and so far has already found considerable interest in the medical press of this country.

Schering's Trikresol.

This is the concentrated preparation of the three cresols, ortho, para, and meta, the active ingredients of coal tar oils. These three cresols are present here in their full strength of 100 per cent. as a water-white clear liquid of pleasant creosote-like odour, and free from the faint smell of carbolic acid. Trikresol is soluble in cold water to the extent of 2.2 to 2.55 per cent., and, as Fraenkel and Gruber have shown, the 1 per cent. is equal to 3 per cent. of carbolic acid, hence Trikresol has a disinfectant value three times that of carbolic acid, and one-third the toxicity.

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is the saturated watery solution of 40 % formic aldehyde CH_2O . It may be said of it, speaking in the sense of the medical practitioners, that the more we use of it the more we like it. Formalin has already found a great number of friends in the principal London hospitals and post mortem rooms. Its great antiseptic value in all forms of zymotic disease, its antifermentative and deodorant services of all bedroom malodours and excrementitious matter, coupled with its harmlessness to the human organism and all articles of textile goods and furniture (wood or metal), and also its inexpensiveness, clearly indicate its general and liberal use by the medical profession as a germicide and preventative of zymotic disease. It should be ordered in 1 % solutions, for which full directions apply.

For Literature, vide "The Therapist," published by Aug. Siegle, 30 Lime Street, E.C.

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Chemists are respectfully referred to page 415 of THE CHEMISTS' AND DRUGGISTS' DIARY, 1894, where Illustrations and important Press Opinions of this saleable article are given.

The Westminster Budget of September 5, 1893, says:—"The 'boot drier and warmer' of Messrs. Belden is an improved foot tree, by means of which boots are not only kept in shape, but heated and dried while on the tree. The necessary heat is obtained by the insertion of a small iron, which has been previously heated, into a perforated case fixed in the hollow part of the tree. A strong sock of soft material is let into the bottom of the tree, and the warmer, lying immediately on this, will become a boon to large numbers of men and women, especially to those who are obliged to be out 'in all weathers.'"

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[2]

A NEW FOOD FOR DIABETICS.

Since "VIROL" was placed on the market we have received numerous letters from members of the Medical Profession asking whether we could not produce a bone-marrow food on the lines of the "VIROL" patent, without the addition of Maltose or sugar in any form, so that it could be given to Diabetic patients?

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Such is our Diabetic Fat Food, which we purpose calling "VIROL sans SUCRE" and which will be put on the market by the time these lines are published, so that any Medical Man wishing to see the preparation or give it a trial, or apply it to any chemical test, can have a supply sent to him for these purposes without charge if he will apply to us.

The price, as with our other new foods, "Marrol" and "Shepperson Meat Juice," which went on the market on the 1st inst. for the first time, has been so regulated that it can be bought by rich and poor alike—a Six Ounce Bottle costing retail One Shilling and Sixpence of any Chemist, who can obtain supplies from all wholesale houses at a few hours' notice.

We cannot publish the analysis to-day as our analyst's report has not yet come in, but in the course of a few days we purpose sending samples to the Editors of the Medical and Chemical Journals, who, we hope, with their usual courtesy, will take the trouble to examine it and publish the results of such examination.

As far as we know, "VIROL sans SUCRE" is the only fat food suitable for Diabetics (excepting, of course, the natural oils) on the market, and certainly it is the only form of bone-marrow put up in a suitable form for administration in these cases; we hope, therefore, that Medical Men will write us in full force for samples, and try the effects of a new Form of Food and Fat which is Pleasant and Cheap for those unfortunate subjects whose List of Dietary is so Uncomfortably Restricted.

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Popular
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The most Palatable Preparation of Cascara Sagrada.

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EDWARD DARKE, Secretary.

INDEX TO ADVERTISEMENTS,

Pages 23 to 25.

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THE CHEMISTS' AND DRUGGISTS' DIARY

~ 1895 ~

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WORLD-WIDE REPUTATION.

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TREATISE ON PERFUMERY,

with a most valuable collection of formulæ, many of which have never been previously published. The rest have been proved to be first-class, and have been compiled from the files of THE CHEMIST AND DRUGGIST. This treatise alone will ensure that the CHEMISTS' AND DRUGGISTS' DIARY for 1895 will be treasured in thousands of pharmacies for many years to come.

The encyclopædic character of the advertisements in THE CHEMISTS' AND DRUGGISTS' DIARY has long been appreciated, and the value of these was largely developed last year by the introduction of a carefully compiled

INDEX TO THE GOODS ADVERTISED.

The immense value of this Index to Chemists, and the consequent benefit to Advertisers, have been so abundantly proved during the year that we shall take the greatest care to make it as complete as possible in the coming volume; and makers of special goods, and dealers in all articles which Chemists may want or sell, are urgently advised not to miss the opportunity of having their articles included in this frequently-referred-to Index.

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FIG. 2.

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We hold a Good Stock, and can give
Prompt Delivery.

Write for full particulars and prices of The "Farrington"
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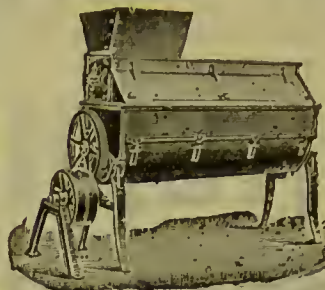
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OIL, TIME, MONEY,

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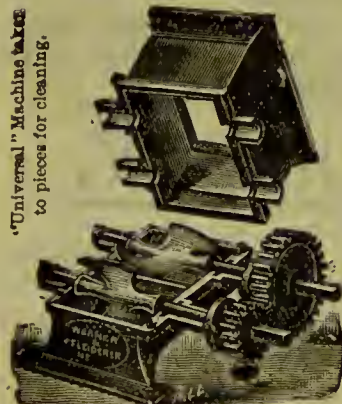
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Obtained by the action of Metallic Zinc on
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For producing Local Anæsthesia.
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In 2-oz., 4-oz., 8-oz., and 10-oz. Stopped Bottles, 2s., 3s. 6d., 7s., and 12s.
PEROXIDE OF HYDROGEN,
First introduced as a Medicine by Sir BENJAMIN W. RICHARDSON.
ETHYLATE OF SODIUM
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For promoting the Healing of Wounds by the first intention.
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Containing Pure Vegetable Ivory Charcoal.
In Boxes, 2s. 6d. each.

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Size 3, Type I., for 1-lb. Mass.

THE "UNIVERSAL"
Kneading & Mixing Machine,

Used by all the largest Pill Makers.

SUITABLE ALSO FOR

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Consistency.

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 1/-, 6/-
 A variety of patterns
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BATHING CAPS.
 6d., 4/6; 1/-, 7/6 per doz.
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 No. 1 2 3 4 5 6
 4/6 5/6 7/- 8/6 10/- 12/-
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LEMON JUICE
EXTRACTORS.
 New shape to hold the
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 Per doz., 3/6.

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GLYCERINE.
 6d., 3/4; 1/-, 6/8 per doz

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 THE "SAMPSON."
 Size 7 in. 7 1/2 in. 8 in.
 Per doz. 2/- 2/6 3/-

2d. Perfumes,
 1/3 per doz.
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BOTTLES.
 200 patterns in stock.
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 6d. 1/- 1/6 2/- 3/- 6/-

SPONGE NETS.
 Per doz. 4/6, 8/-, 12/-

INSECT POWDER
TINS.
 Per gross.
 1d., 2/3; 3d., 5/6;
 6d., 7/9; 1/-, 9/-.

LAVENDER
SMELLING SALTS.
 THE IMPERIAL.
 6d. retail, per doz. 4/-.

FLAVOURING ES-
SSENCES.
 Per doz.
 4-oz. bots. .. 2/3
 1-oz. " .. 4/-
 Almond, Vanilla,
 Lemon, &c.

SPRAY
PRODUCERS.
 1/- Single Ball, per doz.,
 8/-
 Good Double Ball
 Sprays at
 15/-, 21/-, 24/-, 27/-,
 and 33/-.

Druggists' Sundries of all kinds, such as Vials, Corks, Dispens-
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 Caps, Measures, Pill Boxes, Willow Boxes, Elastic Appliances,
 &c., &c., kept in stock.

FRANCIS NEWBERY & SONS

(ESTABLISHED A.D. 1746),

Druggists' Sundriesmen and Perfumers,

1 & 3 KING EDWARD ST., LONDON, E.C.

SHIRLEY'S CORNER!



REGISTERED.

LOOK AT THIS CARD!
 Soothers MUST Sell on such a Card.

1d. line, 7/- gross; 1d. ring, 8/6 gross.
 2d. " 14/- " wonderful value!
 3d. " 1/6 doz.; 1/8, 1/10, & 2/- doz.
 4d. " 2/9 "
 4d. coloured mounts, 2/9 doz.
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*If you don't want bad stock, insist on
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NOW is the time to stock **TINS** for
 Vaseline, &c. Shirley's is the place to go to.

A 1 Tins, plain or stamped Vaseline ... 1/9 gross.
 No. 1 gold Tins, " " " 1/10 "
 No. 1 " " painted in black (Vaseline) ... 2/- "

LARGE BUYERS.—You Can't Afford to Pass us.

A FEW WINTER LINES!

Glycerine and Cucumber, 1/2, 1/10, and 3/6 doz.
 Digestive Candy, 2d. tins, 1/3 doz.; in bulk, 10d. lb.
 Flavouring Essences, 1d., 3/6 gross; 3d., 1/9 doz., 6d., 3/- doz.
 1d. Glycerine, 1d. Camphorated Oil, 1d. Mustard Oil, &c.
 Al Menthol Cones, Etienne Frères' Perfumery, &c.

SHIRLEY BROS., 105-7 Whitecross St., E.C.

£1,000,000

This is the sort of fortune many an old-fashioned Varnish Maker
 has left behind him, but

PINCHIN, JOHNSON & CO.

23 Billiter Street, London, E.C.

Do not aspire to these big figures, but are anxious to prove that their

VARNISHES

(In 1 Gallon Cans free) as well as their

OILS AND COLOURS

are the BEST and CHEAPEST in the Market.

Telegrams—"PINCHIN LONDON."

WRITE FOR PRICE LISTS AND SAMPLES.

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T. & H. SMITH & CO., EDINBURGH & LONDON,

Are the ONLY MANUFACTURERS of the

SALTS OF MORPHIA

To whom, at the UNIVERSAL EXHIBITION, in PARIS, 1878, the
GOLD MEDAL WAS AWARDED

NEW YORK Office—20 Cedar Street: DILLON & CO., Agents.

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MANUFACTURING PHARMACEUTICAL CHEMISTS, EXPORT DRUG MERCHANTS,
IMPORTERS OF BRAZILIAN DRUGS, AMERICAN AND CONTINENTAL SPECIALITIES.
ORIGINATORS AND MANUFACTURERS OF

OL. LAVAND. RECT.

Largely replacing the Mitcham Oil, 21/ lb.
Hydrobromic Syrup of Hypophosphites.



LAC BISMUTHI.

OL. LIMONIS RECT.

Fine quality, keeps well. 6/6 lb.
Lac Bismuthi et Cerli, &c.

PERFECTLY PURE.

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TINCTURE SPIRIT

60 O.P. AT LOWEST PRICES. 56 O.P.

PURE ORANGE WINE.



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AT LOWEST PRICES.

Special Terms to Large Buyers.

PURE GINGER WINE.

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SOLE PROPRIETORS OF THE FAMOUS "GLENALLAN" PURE MALT WHISKY.
7 YEARS OLD. THE CREAM OF SCOTCH WHISKY. Per doz. 42/- Per doz.

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ALLHALLOWS' LANE AND BARTHOLOMEW CLOSE, LONDON, E.C.

Quotations for S.V.R. Methylated Spirit and Finish on application.
FINEST ORANGE WINE FOR QUININE.

**JAMES
BURROUGH.**

FINE PORT (without tannin)
FINE SHERRY (for Medicinal uses, &c.)
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FINE BURGUNDY (for Invalids)
S.V.R. and Methylated Spirit at lowest present prices.

CALE ST. DISTILLERY

All at Lowest Prices and
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R. H. BARRETT'S PATENT CAPPED BOTTLE



THE ONLY REALLY PERFECT BOTTLE FOR VASELINE, POMADES, DRY POWDERS, ETC.

NOTICE REDUCTION IN PRICES.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 10/6; 1½ oz., 11/- 2 oz., 11/6; 3 oz., 13/6; 4 oz., 15/6 per gross. TALL SERIES.

CHEMISTS' AND PERFUMERS' BOTTLES IN GREAT VARIETY, PLAIN OR STOPPERED.

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FLINT GLASS BOTTLE WORKS,
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MANUFACTURE THE FOLLOWING SPECIALITIES—

"STIPENDUM" CORK STOPPERS, in all sizes.

"STIPENDUM" CORK-LINED CAPS, for Pomade Bottles.

"STIPENDUM" OPENERS, for Stoppered Aerated-water Bottles.



"STIPENDUM" GREASE-PROOF COVERED POTS,

IN TERRA COTTA, CHOCOLATE, AND BLACK.

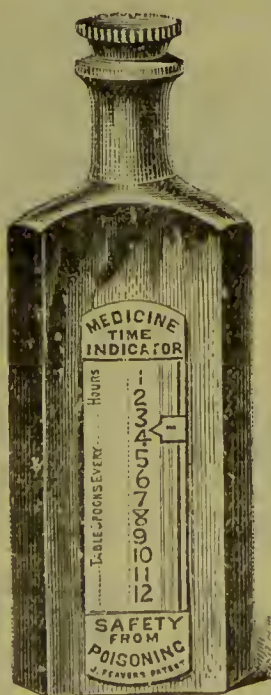
The Grease-Proof Covered Pots have perfectly-fitting lids, are practically unbreakable and the only articles really answering the purpose intended To be had of all Druggists' Sundriesmen. Wholesale only of the Company.

A GOOD LINE FOR THE TRADE.

MEDICINE TIME INDICATOR

And POISON PREVENTIVE.

This invention is for use on Medicine Bottles, for recording the time of last dose or when the next dose should be given. It also distinguishes medicine bottles from others containing poisons or preparations not intended to be taken. It comprises a label or tablet of paper, upon which is printed a series of numbers from 1 to 12 inclusive. A pointer is arranged in connection with the label so that it might be set opposite any of the numbers to indicate the time when a dose was last taken or when it should be next given. The label is gummed to or suspended from the bottle, or it may be placed in any convenient position in the patient's room if medicine for internal use only is being administered. It enables the patient or nurse to readily distinguish the bottle, thus obviating the liability to accidents, and is valuable for family use, by nurses in hospitals, for travellers, or for general use by Doctors and Chemists.



This invention is for use on Medicine Bottles, for recording the time of last dose or when the next dose should be given. It also distinguishes medicine bottles from others containing poisons or preparations not intended to be taken. It comprises a label or tablet of paper, upon which is printed a series of numbers from 1 to 12 inclusive. A pointer is arranged in connection with the label so that it might be set opposite any of the numbers to indicate the time when a dose was last taken or when it should be next given. The label is gummed to or suspended from the bottle, or it may be placed in any convenient position in the patient's room if medicine for internal use only is being administered. It enables the patient or nurse to readily distinguish the bottle, thus obviating the liability to accidents, and is valuable for family use, by nurses in hospitals, for travellers, or for general use by Doctors and Chemists.

Special Terms to the Trade. Apply to the Patentee—

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GLASS BOTTLES

GOOD AND CHEAP.

From Stocks in London or direct from the works.

THE NEW SHAPE FLATS,

With rounded edges, or the ordinary kind, plain or graduated.
3 and 4 ounce 8/- per gross.
6 and 8 9/-

WHITE MOULDED PHIALS.

½ oz. 1 oz. 1½ oz. 2 oz.
3/6 .. 3/9 .. 4/6 .. 5/3 per gross.

PANEL BOTTLES.

2 oz. 4 oz. 6 oz. 8 oz.
7/- .. 8/- .. 9/- .. 9/- per gross.

SPECIAL NOTICE.—Six gross and upwards of assorted sizes sent Carriage Free to any part of England. Smaller quantities not carriage paid. Sample bottle sent free on application.

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Franks St., Tottenham Court Road, LONDON, W.C.

Established 50 years. Bankers—London and Westminster Bank.

In Stock, upwards of 50,000,000 Articles.

Any Special Articles made to order.

TURNED WOOD BOXES, &c.

*3018 Box for Pills or Powders.

SIZE	TO HOLD	PER GROSS.
D ..	6 Pills	1/-
A ..	12 ..	1/6
C ..	24 ..	2/-
H ..	36 ..	3/-
V ..	Powder	8/-

REDUCED PRICES for Original Cases

CONTRACTS to supply Manufacturers as required at specially low figures.



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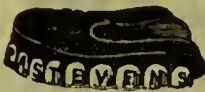
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GREY WOOL, COLOURED WOOLS, & JEWELLERS' SHEETS.
THREE GOLD MEDALS, TWO SILVER MEDALS, AND DIPLOMA OF HONOUR,
The Highest Awards given to any Cotton Wool Manufacturers.
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ORANGE WINE

(VIN. AURANT, P.B.)

Specially brewed for Quinine Wine. Does not deposit, will keep good in any climate.
In casks, 13 gallons to 140 gallons; small casks, 3 to 50 per gallon, carriage allowed
if paid within three months. In wine-bottles (not less than 3 doz.) at 9s. per doz.,
bottles included. Casks and cases extra, and returnable.
Sample on application. Special quotations to large buyers.

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72 MANFRIED ROAD, N.W.,
SOLE PROPRIETOR AND MANUFACTURER.

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Special Terms to Wholesale Houses for Sheet or Sticks stamped with their own name.
A sample box of 3d. sticks sent post free for 12 stamps. Price list and sample free.

FREDK. FINK & CO.

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SPECIALITIES: Glycerine—Gum Arable—
Gum Tragacanth—Pure Beeswax—Honey.

CRETA BRAND G W N PRÆCIP.

Much Lighter and Finer than any other in the Market.

Prices and Samples on application to SOLE AGENTS—

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THE "MORSTADT" Cachets

Are the most digestible, flexible, and elegant in the market, and are
fast replacing all competitors. The Cachets are made to hold from
3 to 18 grains Quinine or Salicylic Acid.

MORSTADT "CACHET CLOSING APPARATUS," to easily and
speedily close 12 Cachets at one operation, from 12/- to 30/-.

SMALL APPARATUS, to fill and close 1 Cachet at a time, from 2/6 to 6/6.

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R. HOPF & CO., 34 Gt. Tower St., LONDON, E.C**PRECIPITATED CHALK, WHITEST & PUREST.**

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ALSO CHEMICALS, DRUGS AND OILS.

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Producing Flaxen Golden Hair.

Gold Medal, PARIS, 1867. PHILADELPHIA, 1876.

This is a very superior article. In Bottles at 3/6, 6/-, & 10/-.

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(SHOWROOMS AT CHAMBER CROSS HOTEL.) [3]

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A new refreshing and invigorating preparation which meets with a
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GOOD PROFIT GUARANTEED.

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Supplied in Original Bottles ready for
Patient's use (stamped), to retail at 4/6
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THORNTON-PICKARD ARE THE SIMPLEST & BEST.

Time & Instantaneous SHUTTERS
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Time & Inst. from 18/6; Snap Shot, from 10/-; Focal
Plane, from 85/-

THE THORNTON-PICKARD MFG COMPANY,
ALTRINCHAM, NEAR MANCHESTER.

**TO LET.****NESS & COMPANY, DARLINGTON,**

SPECIALISTS IN

SHEEP DIPS (Fluid, Paste, Powder) and DISINFECTANTS.

Highest Award World's Fair, Chicago, and Four Gold Medals.

WRITE FOR PARTICULARS AND SAMPLES.

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MANUFACTURING CHEMISTS.

Manufacturers of Acids, Æthers, Sp. Æther. Nit., Sp. Ammon. Arom., Liq. Ammon., Soldering Solution, &c.,
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Works:—WEST DRAYTON, MIDDLESEX.

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By Royal Letters Patent, No. 4196, 31 March, 1894.

Superior to any other for **CHEAPNESS, ELEGANCE, LIGHTNESS, & DURABILITY.**



SEABURY'S NEW AIR-TIGHT ASEPTIC CONTAINERS, for Medicated Bandages, Cottons, Gauzes, &c., received a Special Award at the **WORLD'S COLUMBIAN EXPOSITION, CHICAGO, 1893.**

By their use the medication present remains unimpaired, and Surgeons may have absolute reliance that the medication named on the label is present and remains intact until the Container is opened.

*In ordering it is necessary always to specify **SEABURY'S**, to prevent disappointment. Reject all substitutes.*

QUALITY IS OF FIRST IMPORTANCE.

SEABURY & JOHNSON, Proprietors SEABURY PHARMACAL LABORATORIES,
Manufacturers of **MEDICINAL AND SURGICAL PLASTERS,**
ABSORBENT COTTONS, LINT, BANDAGES, OILED SILK, CATGUT and SILK LIGATURES,
and every variety of **SURGICAL and ANTISEPTIC DRESSINGS.**

*Sole Representatives Great Britain and the Colonies: **FASSETT & JOHNSON, 32 & 33 SNOW HILL, LONDON, E.C.***

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Cannot gain the confidence of their customers by serving them with a ready prepared and labelled parcel (like a patent medicine) in filling the prescription of a Physician. Injury is done to the Physician, as well as to the reputation and pocket of the Chemist who takes such action. The Chemist should supply the most accurately prepared, beautifully finished products, from the purest materials, in the form that receives the endorsement of the Physician. The successful Manufacturing Pharmaceutical Chemist, with a large output, can secure the best chemical ability, the best and purest materials, and will be able to supply standard Pharmaceutical Preparations, accurate in dosage, elegant in appearance, beautiful in finish, at less cost to the Retail Chemist than in his smaller way he could produce them himself. Messrs. JOHN WYETH & BROTHER, Manufacturing Pharmaceutical Chemists, Philadelphia, U.S.A., and 30 Snow Hill, London, E.C., have for nearly a half-century studied closely the needs and wants of the Medical Profession and of Retail Chemists. The Pharmaceutical Products of this house are noted for their

PURITY, ACTIVITY, AND BEAUTY.

They are sold in such sized parcels, and at such prices, as enable the Retail Chemist to answer a prescription and make a prescription profit. Messrs. JOHN WYETH & BROTHER were the Pioneer Manufacturers in Pharmaceutical Chemistry, and they present the results of experience, intelligence, the most complete appliances, and a superintendence of the highest commercial integrity, in their list of elegant Pharmaceutical Preparations, among which especial attention is called to the following:—

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July 28, 1894.

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DISTILLERS OF ESSENTIAL OILS,

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EXPRESSED OILS

ALMOND (Ol. Amygd. Dulc.)

PEACH KERNEL (Ol. Amygd. Persic. Dulc.)

Frequently imported as Ol. Amygd. Exot.

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ESSENTIAL OILS

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PEACH KERNEL

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PIMENTO

SANDAL WOOD

AND OTHERS.

HIGHEST AWARDS CHICAGO, 1893, "FOR OILS OF EXCEPTIONAL PURITY AND STRENGTH."

GEORGE ALLEN & CO.

(ESTABLISHED 1846),

AMPTHILL, BEDFORDSHIRE, ENGLAND,

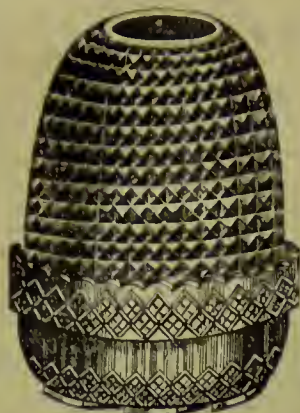
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Medicinal Herb Growers, Distillers, Manufacturers of

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London Agents—STAFFORD ALLEN & SONS.

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Trade Mark,
"PYRAMID."CRICKLEWOOD STATION
MIDLAND RAILWAY.TELEGRAMS.
"PYRAMID LONDON."Trade Mark,
"BURGLAR'S HORROR."

COLLINS STREET, MELBOURNE

Trade Mark,
"FAIRY."Trade Mark,
"WEE FAIRY."

CRICKLEWOOD, London, N.W.

Trade Mark,
"FAIRY-PYRAMID."

September 15th, 1894.

1890, in 4 Colours.

Each Lamp packed in a separate box.

Special Notice—To the Trade only.

DEAR SIR,

We beg to remind you that September 29th will be the LAST day that we can book orders for "Pyramids," "Fairy-Pyramids," and "Fairy" Lights to include Lamps gratis. After that date the Trade can be supplied with Lamps at an extra cost of 6d. per dozen boxes. Our prices will then be

											Per dozen Boxes.
	9-hour "Pyramids," 8 Lights in box, including 4 Lamps...	...	...	...	...	...	...	...	...	...	7 6 net.
	9 " " 6 " " 3 " ...	...	...	...	...	...	...	...	...	...	5 7½ "
Summer Lights	{ 6 " " 12 " " 4 " ...	...	...	...	...	...	...	...	...	...	8 - "
	{ 6 " " 6 " " 2 " ...	...	...	...	...	...	...	...	...	...	4 1½ "
	10-hour "Fairy-Pyramids," 8 Lights and Glass in box, single wicks, including 4 Lamps	...	...	...	...	...	...	...	...	...	7/- "
	6 " " 8 " " double wicks, including 4 "	...	...	...	...	...	...	...	...	...	7 6 "
	10 " double-wick "Fairy" Lights, 6 Lights and Glass in box, the "QUEEN OF LIGHTS,"	...	...	...	...	...	...	...	...	...	10/6 "
	of universal utility, including 2 Lamps	...	...	...	...	...	...	...	...	...
	6 " double-wick "Fairy" Lights, 10 Lights in box, including 2 Lamps	...	...	...	...	...	...	...	...	...	10 6 "
	"Wee-Fairy" Lights, 11 Lights and Glass in box, for decorative purposes, burn about	...	...	...	...	...	...	...	...	...	4 6 "
	4 hours, including 2 Lamps	...	...	...	...	...	...	...	...	...

Terms—Monthly a/c NET. 1d. per dozen for CASH.

The prices and terms for "Pyramid" and "Fairy" Lights WITHOUT Lamps will be as heretofore.

N.B.—Extra Lamps can be obtained at the following prices, viz.:—

"Pyramid" Lamps ... 3/- per dozen.
"Fairy" Lamps .. 8/- "

With a view to prevent mistakes, when sending orders for "Pyramids" after September 29th, please state whether these are required WITH or WITHOUT Lamps.

We are,

Respectfully,

CLARKE'S "PYRAMID" AND "FAIRY"
LIGHT COMPANY, LIMITED.

DEPARTMENT OF SCIENCE AND ART.

ROYAL COLLEGE OF SCIENCE,

STEPHEN'S GREEN, EAST DUBLIN. SESSION 1894-95.

The Royal College of Science supplies courses of instruction in the Sciences applicable to the Industrial Arts, especially those which may be classed broadly under the heads CHEMICAL MANUFACTURES, ENGINEERING, and MINING. A Diploma of Associate of the College (A.R.C.S.O.I.) is granted at the end of the Three Years' Course, the required conditions being complied with. Four Royal Scholarships, of the value of £5 yearly each, with free admission to the Lectures and Laboratories, are attached to the College. Two are offered for competition each year to associate students, not being Royal Exhibitioners, on completion of their First Year's Course. The Fees payable for Non-Associate Students are—£2 for each separate Course of Lectures, £3 for Session; Pure Mathematics, first year, £2 for term, ditto, ditto.

FOR ANALYTICAL CHEMISTRY—£2 for a special course of one month, £5 for three months, £9 for six months, £12 for the entire Session.

FOR PHYSICAL LABORATORY—£2 for a special course of one month; £4 per month for six hours a day; or £6 for the Session (one hour per day): £12 for the entire Session.

FOR ASSAYING—£5 for three months, £9 for six months, £12 for the entire Session.

FOR ZOOLOGICAL LABORATORY—£2 for a Special Course of one month; £3 for 1st Medical or 2nd Arts Course Royal University of Ireland; or £5 for a Special Course of three months.

FOR BOTANICAL LABORATORY—Same as Zoological Laboratory.

FOR GEOLOGICAL LABORATORY.—£2 for a Special Course of one month.

FOR DRAWING SCHOOL—£5 for the Session, £3 for one Term.

The Chemical, Physical, Botanical, and Zoological Laboratories and the Drawing Schools are Open Daily for Practical Instruction; and the Geological Laboratory is open for non-associate Students at hours to be arranged with the Professor.

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Descriptive Geometry, Drawing, Engineering, and Surveying.—Professor JAMES LYON, M.A.

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Physics (Theoretical and Practical).—Professor W. F. BARRETT, F.R.S.E., M.R.I.A.

Geology.—Professor G. A. J. COLE, F.G.S., M.R.I.A.
Mining and Mineralogy.—Professor J. P. O'REILLY, C.E., M.R.I.A.

Botany.—Professor T. JOHNSON, D.Sc., F.L.S.
Zoology.—Professor A. C. HADDON, M.A., F.Z.S., M.R.I.A.

The Courses of Chemistry, Physics, Botany, Zoology, Geology, and Mineralogy are recognised by the Royal University of Ireland, and Certificates of attendance are granted to medical and other students attending the Courses, and the Chemical, Physical, Botanical, and Zoological Laboratories.

Programmes may be obtained on application at the College, or by letter addressed to the Secretary, Royal College of Science, Stephen's Green, Dublin. The first term of the Session will commence on Monday, Oct. 1, 1894.

Note.—In tending Associate Students will be required to pass an Entrance Examination in Elementary Mathematics and Elementary Practical Geometry, as indicated on page 5 of Programme, copies of which may be had on application from the Secretary.
Professor J. P. O'REILLY, Secretary.

THE METROPOLITAN COLLEGE
OF PHARMACY.

Principal—W. WATSON WILL, F.C.S.

The next complete Course of Lectures for the Major and Minor Examinations commenced on Monday, September 3, terminating on December 29, for Day and Evening Classes.

Education Thorough and Practical, no Cram System or Notes Method being employed.

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There are only a few Vacancies for the December Examinations; intending Students should apply at once.

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MAJOR—5 presented, 5 passed, 4 at first attempt.

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SCHOOL, GREAT ORMOND STREET, BLOOMSBURY, W.C.

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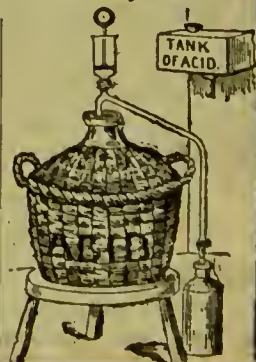
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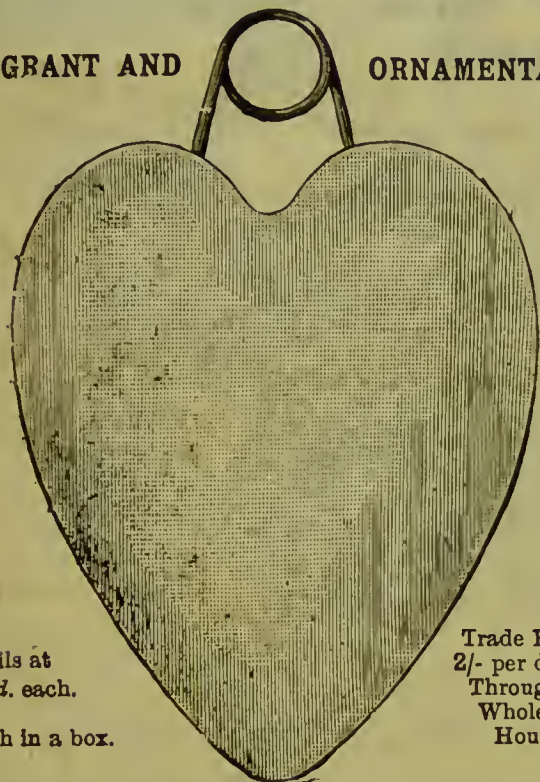
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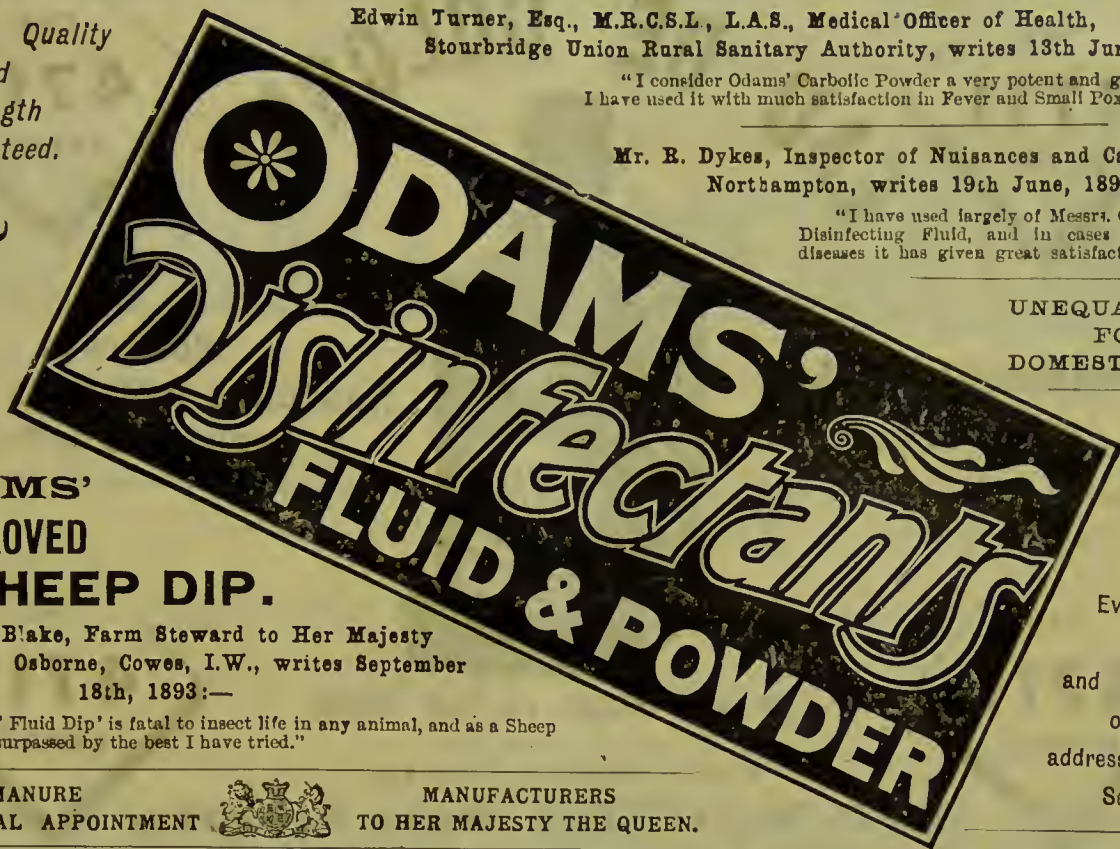
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Any strength. Packets, Tins, and in Bulk.

CARBOLIC ACIDS: CRUDE, 95/97%
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NEW CROP.

Oil of Neroly, Rose Water, and
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prices are placed much below their true value, bringing the *highest quality produced*
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	Bots.	½ Bots.	Bottles	½ Bottles	½ Bottles	½ Bottles		Bots.	½ Bots.	Bottles	½ Bottles	½ Bottles	½ Bottles
Æsculap	15/-	12/-	25	30/-	50	50/-	Levico	—	15/-	—	—	—	—
Apollinaris	6/-	5/-	50	23/-	100	36/-	Pullua	12/-	8/-	40	36/-	40	25/-
Bourboule (La) ..	11/-	—	50	42/-	—	—	Reguaris	5/6	4/6	50	21/-	50	16/6
Carlsbad	12/-	—	50	46/-	—	—	Rosdorf	6/-	—	50	25/-	—	—
Condal	—	14/-	—	—	50	56/-	Rosbach	6/-	5/-	50	25/-	100	39/-
Contrexeville .. .	9/-	—	50	35/-	—	—	Royat	9/-	—	50	34/-	—	—
Flitwick	24/-	15/-	—	—	—	—	Rubinat	15/-	9/-	25	30/-	50	36/-
Frauz-Josef	—	12/-	—	—	50	42/-	St. Galmier .. .	6/-	—	50	22/-	—	—
Friedrichshall ..	13/-	10/-	25	25/-	50	40/-	St. Marco	11/-	6/6	50	42/-	100	52/-
Gerolstein	5/-	4/-	50	20/-	50	15/-	Salutaris (including bottles) ..	4/-	2/6	—	—	—	—
Hunyadi-Janos ..	11/6	9/-	25	21/-	50	34/-	Selters	6/-	4/6	50	24/-	50	17/-
Johannis	6/-	4/6	50	22/-	100	35/-	Vals	8/6	—	50	33/-	—	—
Kronenquelle .. .	10/-	—	50	38/-	—	—	Vichy (State Springs) .. .	8/6	7/6	50	33/-	50	29/-
OBERBRUNNEN ..	9/-	—	50	36/-	—	—	"Celestins," "Grande-Grille," &c.	—	—	—	—	—	—

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PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

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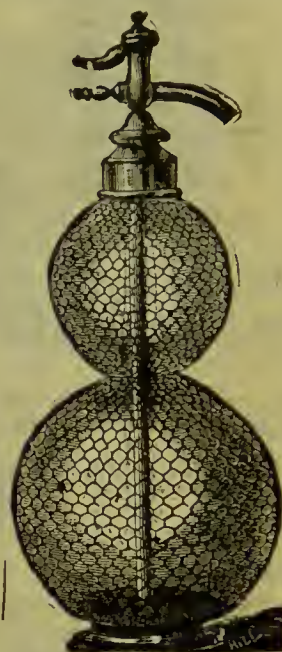
1	2	3	4	5	8 pint.
6/-	6/8	7/6	8/6	10/5	16/- each.

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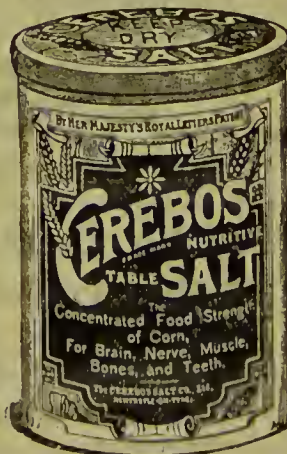
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CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear in the preceding Index are published in one of the other issues of this month.

ACETIC ACID Lorenz, H. Morris & Callard (Salts)	APPARATUS Bennett, Sons & Stears Berend, O., & Co. Chelsty, T., & Co. De Grave, Short, Farmer & Co.	BOOKS Hargreaves, Dr., W. R. Southall's "Materia Medica" Squire's "Companion" Squire, P.	CALENDARS Ford, Shapland & Co. Hidesheimer, S., & Co., Lim. Speller & Co. Townsend, J.	CHEEK TILLS Gledhill, G. H., & Co. O'Brien, Thos. Stokes, G. R., & Co., Ltd. Voucher Cheek Till Co., Lim.
ACIDS Boulton, J., & Co., Lim.	BAKING POWDER Goodall, Backhouse & Co.	BORAX Howards & Sons Mack's Starch	CAMPION Howards & Sons May & Baker, Lim.	CHEST PROTECTORS Hookin, Wilson & Co. Liverpool Patent Lint Co. Maw, S., Son & Thompson Newbery, F., & Sons Pattinson, G. Schutze & Co. Solport Bros. Wood, Vincent
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ALERT & MINERALS Apollinaris Co. Barnett & Foster Brathby & Hinchliffe, Lim. Chemists' Aerated Waters Association, Lim. Ellis & Son (Bath/Al) Idris & Co., Lim. Ingram & Royle Jawbury & Hays Mills & Co. (Bourne) Oberbrunn Pickard & Co.	BATH & FLESH GLOVES Barclay & Sons, Lim. Chemists' Association, Lim. Maw, S., Son & Thompson Pattinson, G. Solport Bros. Wood, Vincent	BRUSHES Evans, Sons & Co. Kent, G. B., & Sons	CSCRA SACRADA Anderson & Co. Duncan, Flockhart & Co. Evans, Sons & Co. Farris & Co. Harker, Stagg & Morgan Moss, J., & Co. Parke, Davis & Co. Squire & Sons Stearns, F., & Co.	CHLORODYNE Blyton, Astley & Co. Davenport (Brown's) Towle, A. F., & Son
BITTO PLANT (See SYMPHONS and BERNARD.) Barnett & Foster Brathby & Hinchliffe, Lim. Rylands, Dan, Lim. Tyler, Hayward, & Co.	BATH SALTS Anderson & Co.	BUNSEN BURNERS Berend & Co.	CHALK, PRECIP. Levermore, Aug., & Co. Morrison, K., & Co. Nicholls, G. W.	CHLOROFORM Duncan, Flockhart & Co. Macfarlan, J. F., & Co. Smith, T. & H., & Co. Wright, Layman & Umney Zimmermann, A. & M.
BOOZIES ABROAD Australian Drug Co. Boley Emphorine, Prosser & Co. Lemon, B. G., & Co. (N.S.) Peake, Allen & Co. Prosser, Taylor & Co. Soul, W. H., & Co.	BICARB. SODA Brunner, Mond & Co., Lim. Howards & Sons May & Baker, Lim.	BUTTER SOL., & Co. Boulton, J., & Co., Lim. Crawshaw & Co. Hartick & Co., Lim. Lambert & Hayward	CHEMICALS Berger, Kahler & Co. Bosch, Fredk. Boschinger, C. F., & Sohn Boulton, J., & Co., Lim. Brunner, Mond & Co., Lim. Burton, W., & Sons Fletcher, Fletcher & Stevenson Goodall, Backhouse & Co. Hill, A. S., & Son (Clark) Hodgkinson, Treacher & Clarke Howards & Sons (Pharm.) Lofthouse & Saltmer Lorenz, H. Macfarlan, J. F., & Co. May & Baker, Lim. Morris & Callard Moss & Co. Smith, T. & H., & Co. Tyrer, T., & Co. Washington Chemical Co. White, A., & Sons Zimmermann, A. & M.	COCA & CHOCOLATE Cadbury Bros. Christy & Co.
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AMMONIA May & Baker, Lim. White, A., & Sons Woolley, Sons & Co.				COCA & CHOCOLATE Cadbury Bros. Christy & Co.

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Armbrast, Nelson & Co.
French Hygienic Soc.
Lorimer & Co.
Stepha Smith & Co. (Hall's)
COLAPSE TUNES
Bells & Co.

COMP. MEDICINES

Allen & Hanbury
Blyton, Astley & Co.
Burroughs, Wellcome & Co.
Cooper, B. & Co. | Leo & Co.
Eloyd, T. Howard & Co.
Parke, Davis & Co.
Richardson, J., & Co., Lim.
Stearns, F., & Co.

CONCENT. LIQNS

Balse Bros., & Co.
Cooper & Co.
Fletcher, Fletcher & Stevenson
Lloyd, T. Howard & Co.
Richardson, J., & Co., Lim.

CORN CURES

Gardner, C.

COTTON WOOL

Haynes, G., & Co. (Absorbent)
Robinson & Sons (Absorbent)
Sanger, J., & Co.

CRASH LINEN

Mumford, G. B.
Sier Bros.

DENTIFRICES, &c.

Beecham, T.
Burroughs, H., & Co.
Hanson, O.
Jewsbury & Brown
Lakeman, J. J.
Stevens, F. A.
Sutton, C., & Co.
Warwick Bros. | Wilson, A.
Woods, W. (Arees Nut)

DISINFECTANTS

Barelay & Sons, Lim.
Beedler & Co.
Brooks, T.
Drysdale, J. W., & Co.
Dunack Bros. & Co.
Fletcher Bros. & Co.
Government Sanitary Co.
Hebden, W. O.
Jeyes' Sanitary Compounds Co.
Mason, C. B., & Co.
May & Baker, Lim.
National Chemical Co.
Ness & Co.
Oadams' Chemical Co., Lim.
Sanitas Co., Lim.
Seabury & Johnson
Tyrer, T., & Co.
Wandsworth Chemical Works, Lim.

DOG MEDICINES

Bratt's Patent, Lim.

DRUGGISTS' SUP.

Ayrton & Saunders
Barelay & Sons, Lim.
Belden, E. & W.
Chemists' Association, Lim.
Evans, Leaser & Webb
Evans, Sons & Co. (Savars)
Feaver, J.
Fordham, W. B., & Sons, Lim.
Hookin, Wilson & Co.
Kay Bros., Lim.
Maw, S., Son & Thompson
May, Roberts & Co.
Newberry, F., & Sons
Quelch, H. & Sons
Salt Regal Co., Lim.
Sanger & Sons (essence & Co.)
Tidman & Son | Toogood & Co.
Tunbridge & Wright
Wood, Vincent

DRUGS

Allen, S., & Sons (Grinders)
Graf, F. | Hopf, M.
Morrison, B., & Co.
Richardson, J., & Co., Lim.
(Grinders)
Wegman, T. & W.

DRYBATTERIES

Browning, J. H., & Co.

EYES, &c.

Crawshaw & Co.
Hatrack & Co., Lim.

EAU DE COLOGNE

Parina, J. M. | Muhlen, F.
Hookin, Wilson & Co.

EMBOCATION

Day & Sons
Elliman, Sons & Co.

ENEMAS

Barelays, Lim.
Evans, Sons & Co.
Putney, J., & Sons
Sanger & Son
Wood, Vincent

ENGLAVERS

Casper & Co., Lim.
Cortan, J. B.

ESSENCES

Boulton, J., & Co. (Lim.)
Bratty & Hinchliffe, Lim.
Burgoyne, Burbridge & Co.
Bush, W. J., & Co.
Fletcher, Fletcher & Stevenson
Goodall, Backhouse & Co.
Hickinsons, Prestons & King
Laird & Co., Lim.
Lorimer & Co.
May & Baker, Lim.
Neuball & Mason
Rylands, Dan, Lim.
Stevenson & Howell
Tyrer, F. (Anchovise)
Tyrer, T., & Co.
Woolley, Sons & Co.

ESSENTIAL OILS

Alieu, S., Sons
Bosom, Prodt.
Burb, W. J., & Co.
Dodge & Olegit
Drysdale, J. W., & Co.
Evans, Sons & Co. (Clarke)
Hodgkinson, Treacher & Co.
Lambert, S., & Co.
May & Baker, Lim.
Poppelreuter, W.
Ransom, Wm., & Sons
Rylands, Dan, Lim.
Socio & Andrioli
Spurway & Co.
Stevenson & Howell
Sutton & Co.
Todd, A. M.
Treat, R. C.
Warwick Bros.
Widemann, Brocher & Co.
Wright, Layman & Umney

ETHER

Duncan, Floekhart & Co.
Howards & Sons
Macfarlan, J. F., & Co.
May & Baker, Lim.
Mobbins, J., & Co.
Tyrer, T., & Co.
White, J. Sons
Woolley, Sons & Co.
Wright, Layman & Umney

ETHYL CHLORIDE

Kuhn, B.

EUCALYPTUS

Gaughland, Mackay & Baker
Masey & Co.
Tasmanian Eucalyptus Oil Co.

EXALGINE

Kuhn, B.

EXTRACT MEAT

Armour & Co.
Brand & Co.
Idris & Co. (Viking Co.)
Liebig Co.
Liquor Carnis Co., Lim.
Mason, G., & Co., Lim.
Wyeth, J., & Brother

EXTRACTS, FLUID

Allen & Hanbury
Allen, G., & Co.
Burgoyne, Burbridge & Co.
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire & Francis
Kooper, B., & Co.
Lloyd, T. Howard & Co.
Moss & Co.
Parke, Davis & Co.
Potter & Clarke
Ransom, W., & Son
Richardson, J., & Co., Lim.
Stearns, F., & Co.
Wright, Layman & Umney

EXTRACTS, SOLID

Allen, G., & Co.
Ransom, W., & Son
Stearns, F., & Co.

FEED BOTTLES

Burroughs, Wellcome & Co.
(Thermo Safe)
Chemists' Association, Lim.
Evans, Sons & Co.
Gilbertson, H., & Sons
Hearn, Wright & Co.
Hookin, Wilson & Co.
Kilner Bros.
Marriott, B., & Co.
May, Roberts & Co.
Maw, S., Son & Thompson
Shirley Bros.
Surrey Packing Co.
Yendon, B.

FILTERS

Fordham, W. B., & Sons, Lim.
Mawson Filter Co.

FLY PAPERS

Buchan, D.
Ford, Shapland & Co.
Marshall, B.
Mather, W. Lim.
May, Roberts & Co.
Silverlock, H.
Strong, Christy
Tidman & Sons
Tunbridge & Wright

FOOD (Infants & Invalids)

Allen & Hanbury
Benger's Food
Brand & Co.
Cerebos Salt Co., Lim.
Colbath, H. B.
Evans, Sons & Co.
Glendinning, W., & Sons
Goodall, Backhouse & Co.
Hearon, Squire & Francis
Liebig Co. | Lorimer & Co.
Mason, F.
Mason, G., & Co., Lim.
Mellin's Food | Nestlé, H.
Bidge, Dr. | Tyrer, F.
Viking Food Co.
Wyeth, J., & Bro.

FORMULE

Brooke, T.

FULLERS' EARTH

Fullers Mining Co., Lim.
GLASS TINES
Astley Cooper & Co.
Hookin, J.
Helm, J. & Co.

GINGER ALE

Bratty & Hinchliffe, Lim.
Chemists' Assn. & Mineral
Water Association, Lim.
Ellis & Son
Mills, E. M., & Co.
Sons & Sons (Lim.)

GLYCERINE

Ryton, Astley & Co. (Pastilles)
Boehm, F. | Fink & Co.
Price's Candle Co., Lim.

GOUT & RHEU-

MATIC CURE

Bromley, C.

GRANULAR PREP.

Bishop, A., & Sons
Blyton, Astley & Co.
Evans, Sons & Co.
Hearon, Squire & Francis
Lloyd, T. Howard & Co.
Miehardson, J., & Co., Lim.
Tyrer, T., & Co.
Wright, Layman & Umney

HAIR PREP.

Bate, F. W.
Cassie & Co.
Cheesbrough & Co.
Edwards & Co.
Trueft, H. P., Lim.

HERB BEER EXTS

Newball & Mason
Potter & Clarke
Southall Bros. & Barelay

HOMEOPATH O

Eppe, James, & Co., Lim.
Keene & Ashwell
Leath & Boes
Watson & Watts

HYPOPHOSPHITES

Duncan, Floekhart & Co.
Fellows
Fletcher, Fletcher & Co.
Lorimer & Co. | Symes & Co.
Tyrer, T., & Co.

INHALERS

Burroughs, Wellcome & Co.
Gilbertson, H., & Sons
Hookin, Wilson & Co.
Putney, J., & Son
Toogood, W.

INK

Bewley & Draper, Lim.
INSECTICIDES
Barelay & Sons, Lim.
Hebbeler, K.
Hookin, Wilson & Co.
Lorimer & Co.
Sandford & Sons
Steiner & Co.
Stevenson & Howell

IRON, REDUCED

Berger, Kahler & Co.

KETCHUP

Tyrer, P.

KOLA

Christy & Co.
Mose, John, & Co.

LAMPS

Caspar & Co.

LARD

Ewen, J., & Sons

LEMON SQUASH

Kemp & Son

LIME JUICE

Evans, Sons & Co.
Lorimer & Co.

LINT

Burgoyne, Burbridge & Co.
Christy, T., & Co.
Lindner & Co.
Liverpool Lint Co.
Maw, S., Son & Thompson
Newsome, Co.
Robinson & Sons

LIQUORICE

Dennie Di Lingo & Co.

LIQUORS

Cooper & Co.
Fletcher, Fletcher & Stevenson
Hodgkinson, Prestons & King
Lloyd, T. Howard & Co.
Moss, John, & Co.
Oppenheimer, Son, & Co., Lim.
Stearns, F., & Co.

LOZENGES

Allen & Hanbury
Blyton, Astley & Co.
Gilbertson, H., & Sons (Mansra)
Gnest, T., & Co.
Hill & Son | Lorimer & Co.
Kaimce & Co.
Richardson, J., & Co., Lim.
Stearns, F., & Co.
Warwick Bros.

MACHINERY

Bennett, Sons & Shears (Lim.)
Carter, F. H.
Gardner, W.
Hookin, Wilson & Co.
Pincoz, J. W.
Werner & Pfeiderer (Knead-
ing and Bifling)

MALT EXTRACT, &c.

Allen & Hanbury
Anderson & Co.
Burroughs, Wellcome & Co.
(Kepler)
Glendinning, W., & Sons
(Wine)
Hearon, Squire & Francis
Leconte, Eugene
Lofodon Cod Liver Oil Co.
Lorimer & Co.
Moss, J., & Co.
Oppenheimer, Sons & Co., Lim.
Parke, Davis & Co.
Raimes & Co.
Raimes, Clark & Co.
Miehardson, John, & Co. (Lal-
sester), Lim.
Robinson & Co.

MAGNESIA

Bleedale, W., & Co.
Evans, Sons & Co.
Henry, T. & W. (Calcined)
Will, A. S., & Sons
Lloyd, T. Howard, & Co.
Lorimer & Co.
Washington Chemical Co.

MARKING INKS

Bond (Daughter of the late
John) (Lark and Pencils)

MEDICINE CHESTS

Burroughs, Wellcome & Co.
Day, Son & Hewitt (Veterinary)
Day & Sons (Veterinary)
Richardson, J., & Co., Lim.

MENTHOL

Burroughs, Wellcome & Co.
Christy, T., & Co.
Evans, Sons & Co.
Hookin, Wilson & Co.
Maw, S., Son & Thompson
Shirley Bros. | Tyrer, F.

MERCURIALS

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May & Baker, Lim.
Tyrer, T., & Co.

METH. SPIRITS, &c.

Boord & Son | Burroughs, J.
Jones & Co.
Phillips, G., & Co.
Smith, S., & Co.

METHYLENE

Robbins, J., & Co.

MICROSCOPES

Darton, F., & Co.

MILK

Nestlé, H. (Condensed)

MORPHIA

Macfarlan, J. F., & Co.
Smith, Bertie, & Co.
Smith, T. & H., & Co.

OILS, PAINTS, &c.

Browning, J. H., & Co.
Fox, W., & Son
Mathews, H., & Co.
Pinchin, Johnson & Co.
Wandsworth Chemical Works, Lim.

ointment bases

Burroughs, Wellcome & Co.
(Lancolin)
Cheesbrough Co. (Vaseline)
Christy, T., & Co.
Lloyd, T. Howard, & Co.
Richardson, J., & Co. (Leisler-
ter), Lim.

OPIMUM

Hop, R.

OPTICIANS

Botwright & Grey
Darton, F., & Co.
Darton, F., & Co. & Sons, Lim.
Howard & Sons (Opticians)
Thornton-Pickard Co.
Tyrer, T., & Co.
White, Alfred, & Sons
Zimmerman & Co.

PAPAIN

Kuhn, B.

PAT. MEDCNS, &c.

Anglo-American Drug Co.
(Lim.) (Preserv.)
Atkinson & Barker (Infant)
Barelay & Sons, Lim.
Beecham, T. (Pills)
Bow's, Dr. (Linctment)
Bromley, C. (Gout and Rheu.)
Chemists' Association, Lim.
Clarke's Blood Mixture
Edwards & Son
Evans, Leaser & Webb
Fassett & Johnson
Fenning (Powdere)
Goodall, Backhouse & Co.
Holloway (Pills and Oint.)
Hovenden & Sons
Lalor (Phosphodyne, &c.)
Mackenzie, Dr. (Ostarrh Curs)
May, Roberts & Co.
Newberry, F., & Son
Roberts & Co. (Foreign)
Sutton, W., & Co.
Warner, H. H., & Co., Lim.
Wilson, A. (Bunter's Nervins)

PEPPERMINT OIL

Buch, W. J., & Co.
Ransom, W., & Son
Stevenson & Howell

PEPSIN, &c.

Armour & Co.
Burroughs, Wellcome & Co.
Fletcher, Fletcher & Stevenson
Newberry, F., & Sons (Ingilvin)
Parke, Davis & Co.
Stearns, F., & Co.
Stern, G. & G.
Warner & Co. (Ingilvin)

PEROX. OF HYDR.

May & Baker, Lim.
Robbins & Co.
Tyrer, T., & Co.

PETROLEUM

Allen & Hanbury
Christy, T., & Co.
Dee Oil Co., Lim.
Snowdon, Sons & Co.
Wandsworth Chemical Works, Lim.

PERFUMERY, &c.

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Bleedale, W., & Co.
Blondan & Co. | Boehm, F.
Blyton, Astley & Co.
Brooke, T. (solid)
Burgoyne, Burbridge & Co.
Burroughs, Wellcome & Co.
Bush, W. J., & Co.
Chemists' Association, Lim.
Cheesbrough Co.
Evans, Sons & Co.
Ewen, J., & Sons
Farina, J. M.
Hovenden & Sons
Lancolin | Mulhens, F.
Newberry, F., & Sons (Bardot)
Pears, A. & F., Lim.
Preston's Patent Candles Co.
Socio & Andrioli
Tidman & Son | Treat, E. C.
Trueft, H. P., Lim.
Warwick Brothers
West, T. (Okeill's Mona)
Woolley, Sons & Co. (Powder)
Wright, Layman & Umney

PHARM. PREPS.

Allen & Hanbury
Armour & Co.
Balse Bros.
Barron, Harveys & Co.
Boehm, Fredk.
Boehring, U. F., & Sohns
Boulton, J., & Co., Lim.
Burgoyne, Burbridge & Co.
Burroughs, Wellcome & Co.
Duncan, Floekhart & Co.
Ferris & Co.
Fletcher, Fletcher & Co.
Giles, Schacht & Co.
Hearon, Squire & Francis
Hewlett & Son
Hill, A. S., & Sons
Howards & Sons
Macfarlan, J. F., & Co.
May & Baker, Lim.
Moss, J., & Co.
Oppenheimer, Son & Co., Lim.
Parker, Davis & Co.
Potter & Clarke
Richardson, John, & Co. (Lal-
Roberts & Co. (sester), Lim.
Smith, T. & H., & Co.
Squire & Sons
Sutton, W., & Co.
Symes & Co. | Tyrer, T., & Co.
Ward, H. H., & Co., Lim.
White, Alfred, & Sons
Woolley, Sons & Co.
Wyeth, Jno., & Bro.
Zimmermann, A. & M

PHOTOGRAPHIC

Barelay & Sons, Lim.
Blackfriars Photographic Co.
Boehm, Fredk.
Botwright & Grey
Burroughs, Wellcome & Co.
Darton, F., & Co.
Fordham, W. B., & Sons, Lim.
Howard & Sons (Opticians)
Thornton-Pickard Co.
Tyrer, T., & Co.
White, Alfred, & Sons
Zimmerman & Co.

PILL MACHINES

Pindar, J. W.
Toogood, W. (Coater)
Werner & Pfeiderer

PILLS (Coated, &c.)

Allen & Hanbury
Anderson Apothecaries' Hal
Beecham, Thomas
Blyton, Astley & Co.
Bromley, C. (Gout & Rheu.)
Carter's Little Liver Pills
Cox, Arthur H., & Co. (Pastilles)
Dr. Williams Medicine Co.
Duncan, Floekhart & Co.
Evans, Sons & Co.
Hearon, Squire & Francis
Hill, A. S., & Son
Holloway's
Jolly's "Duchess" Pills
Lloyd, T. Howard, & Co.
Lorimer & Co.
McKesson & Robbins
Newberry, F., & Sons
Nortons, Lim. (Cawomile)
Parke, Davis & Co.
Potter & Saker
Richardson, J., & Co., Lim.
Stearns, F., & Co.
Walker, D. P.
Wand, S. (Pearl Coated)
Warner, W. B., & Co. (Coated)
Wyeth, J., & Bro.
Wyleys, Lim.

PLASTERS

De St. Dalmas, A.
Evans, Sons & Co.
Johnson & Johnson, Lim.
Leelles, Lim | Mather, W., Lim.
Seabury & Johnson

POLISHING

Bradley & Bonidas (Albatur)
Chancellor & Co.
Fordham, W. B., & Sons, Lim.
Lubenski, H. & A.

PORCELAIN GDS

Toogood (E.C. Pots, regist.)

POULTRY FOOD

Bratt's Patent, Lim.

PRINTING

Bowers Bros.
Cooman, J. R. (Glass)
Ford, Shapland & Co.
Silverlock, H.
Taylor Bros. | Townsend, J.

QUININE SALTS

Boehringer, G. F., & Sohn
Hockin, Wilson & Co. (Wine)
Howards & Sons
Smith, S., & Co. (Wine)
Zimmermann, A., & M.

RENNET

Dunau, Flockhart & Co.
Tomlinson & Hayward

SALICIN

Macfarlan & Co.
Smith, T. & H., & Co.

SALICYLATES

Knoll & Co.

SALICYLIC ACID

Burrows, Burbridge & Co.
Kuhn, B.
Zimmermann, A., & M.

SALOL

Kuhn, B.

SARSAPARILLA

Wilkinson's

SAUCES, PICKLES

Goodall, Backhouse & Co.
Mason, G., & Co., Lim.
Tyrer, P.

SCIENTIFIC INSTRUMENTS

Darton & Co.

SEEDS

Potter & Clarke

SEIDLITZ POWDERS

Bluton, Astley & Co.
Hockin, Wilson & Co.
Hors & Co.
May, Roberts & Co.

SELTZGENES

Bratby & Hinchliffe, Lim.
Evans, Sons & Co.
Gerant, F., & Co.
Hockin, Wilson & Co.
May, Roberts & Co.

SHAVING

Hovenden & Sons (Nuxesic)
Lloyd, Wm. A. S. (Nuxesic)
Truefitt, H. P., Lim.

SHEEP DIP

Fletcher, Bros. & Co.
Ness & Co.
Odams' Chemical Co., Lim.
Tomlinson & Hayward (Lim.)
Wandsworth Chemical Works, Lim.

SCHOOLS, &c.

Central School of Chemistry
City School of Chemistry and Pharmacy, Lim.
Lolietto, A. (Mortuary Training)
London Homoeopathic and Medical School
Manchester Coll. of Pharmacy
Metropolitan Coll. of Pharmacy
Newcastle School
Newington Coll. of Chemistry
Northern School of Pharmacy
Owens College
Peoples' Palace School
Royal College of Science
Stamford College of Pharmacy
South London School of Pharmacy, Lim.
The School of Pharmacy
Westminster College

SHOP FITTERS

Bowling & Govier
Bygrave, J. & W.
Evans, Sons & Co. Howlett, S.
Joseph, R. | Natali & Co.
Treble, G., & Son

SOAP

Ayrton & Saunders
Barelay & Sons, Lim.
Blondeau & Co. (Vinolia)
Bronnley, H., & Co.
Cook, E., & Co.
Evans, Sons & Co.
Fordham, W. B., & Sons, Lim.
Jeyes' Sanitary Compound Co
Lorimer & Co.
Muhlene, P.
Pears, A. & F., Lim.
Tidman & Son
Wright, Layman & Umney

SODIUM PRXIDE.

Burton, W., & Sons

SPECTACLES

Botwright & Grey
Darton, F., & Co.

SPONGES

Greenswell Bros. & Schmitts
Evans, Sons & Co.
Peterson, M., & Co.

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Hickleson, J.

STARCH

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Ortleby (Glass) (Double)

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Barnett & Foster | Melin, O.
Orehard, E. (Poison)
Stipend Stopper Co., Lim.

STOVES

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Boehm, Fredk.

SURGICAL

Ayrton & Saunders
Balely, W. H., & Son
Barelay & Sons, Lim.
Burgoyne, Burbridge & Co.
Cooking, J. T.
Fechmann Bros. & Walsh
Harris, J.
Haywood, J. A.
Krohn & Seemann
Liverpool Patent Lint Co.
Macfarlan, J. F., & Co.
Mather, W. Lim.
Maw, S., Son & Thompson
Powell & Barstow
Queleh, H. O.
Richardson, John, & Co. Lim.
Robinson & Sons
Sehnke, F., & Co.
Statham, H., & Co.
Victoria Rubber Co.
Wood, Vincent

SYPHONS

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Bratby & Hinchliffe, Lim.
Chemists' Aerated & Mineral
Water Association, Lim.
Fordham, W. B., & Sons, Lim.
Idris & Co., Lim.
Kilner Bros. | Mellin, O.
Rylands, Dan, Lim.

SYRUPS

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Cooper & Co.
Fletcher, Fletcher & Stevenson
Idris & Co., Lim. (Liquors)
Stevenson & Howell

TABLETS

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Cooman, J. R. (Advertising)
Richardson, J., & Co., Lim.
(Compressed)

TEA

Burroughs, Wellsome & Co.
(Tabloids)
Gt. Tower St. Tea Co.
Horniman, W. H., & F. J., & Co.,
Pearse & Meeking | Lim.

TEETHING PADS

Marriott, E., & Co.

THERMOMETERS

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Barelay & Sons, Lim.
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Hewlett, O. J., & Son
Hodgkinson, Prestons & King
Lloyd, T. Howard, & Co.
Moss, John, & Co.
Parke, Davis & Co.
Wyleys, Lim.

TOBACCO & CIGRS

Singleton & Co. (Lim.)

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Allen & Hanbury (Ohrlema)
Bates, F. W.
British Paper Co.
Burroughs, Wellsome & Co.
(Lanolin)
Dee Oil Co., Lim.
Hockin, Wilson & Co.
Hovenden & Sons
Maw, S., Son & Thompson
Queleh, H. O.
Truefitt, H. P., Lim.

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Beecham, T.
Jewsbury & Brown
Maw, S., Son & Thompson
Mutton, O., & Co. (Saves)
Truefitt, H. P., Lim.
Wilson, A. (Bunter's)
Woods, M. (Aresca)

TRADE MARKS

Browne, T. B.
Trade Mark Society, Lim.

URETHANE

Howards & Sons
Vaccine Association (Lymph)

VACCINATION

Rebman, F. J.
Vaccine Association (Lymph)

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Crocker, G. B., & Co.
Orridge & Co.
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Chasabrough Co.
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Millman, Sons & Co.
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Kemp, Wm., & Son (Clarke)
Lloyd, T. Howard, & Co.
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Macfarlan, J. F., & Co.
Potter & Clarke
Frosser, Taylor & Co.
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Raines, Clark & Co.
Richardson, J., & Co., Lim
Symes & Co.
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Woolley, Jas., Sons & Co.
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Coleman & Co., Lim.
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1,000 PILLS IN SHOW VASE, 5/6.

PIONEERS IN THE PILL TRADE!

Highest Award, Chicago, 1893.

WM. R. WARNER & CO. SMALL SUGAR-COATED PILLS,

Unequalled in their medicinal properties or in SOLUBILITY, the best ingredients being invariably employed.

Suitable for Retail Sale, in Screw-capped Pill Tubes. Not liable to Stamp Duty unless specially recommended or sold as "Proprietary."

No. 142.—Gran. Cath. Comp. (Little Cathartic Granules).
Aloin, 1-10 gr.; Podophyllin, 1-5 gr.; Ext. Hyosey., 1-20 gr.;
Jalapin, 1-10 gr.; Ext. Nuc. Vom., 1-20 gr.; Ol. Res. Capsici,
1-20 gr. Dose, 1 to 4.

Per 1,000,
in Plain Bottle.
4/.

Per Small Stopped Vase,
with painted glass label,
5/6.

Per Stopped Vase,
with painted glass label
(5,000), 21/.

No. 180.—Gran. Cath. Co. c. Euonymin.—Same as "No. 142," except that 1-5 gr. Euonymin is used instead of 1-5 gr. Podophyllin.
Prices same as for "No. 142."

An "all-round" Antibilious Pill, which has found favour wherever introduced, is "No. 120" ("Pil. Cathartic & Liver").

No. 120.—Pil. Cathartic and Liver.
R. Podophyllin, 1/2 gr.; Ext. Colocynth, 1/2 gr.; Pv. Soc. Aloes,
1 gr.; Pv. Scammony, 1/2 gr.; Pv. Saponis, 1/2 gr.; Ext. Hyosey-
aml, 1/2 gr.; Gingerline, 1/2 gr. Dose, 2 to 4 pills as a purgative,
1 to 2 pills as an aperient.

Per 1,000,
in Plain Bottle,
4/.

Per Stopped Vase,
with painted glass label,
6/4.

Per Bottle
(Bulk) of 5,000,
18/9.

Write for New Complete Price List of PILLS, GRANULES, and PARVULES, &c., by W. R. WARNER & CO., giving upwards of 250 Excellent Formulæ, at moderate and greatly reduced prices.

Depot: **F. NEWBERRY & SONS.**

McKesson & Robbins : Originated 1870 : New York.

1. Because they are prepared from materials of the highest quality only.	4. Because they are not subjected at any stage of preparation to the injurious action of heat.
2. Because they are made according to the B.P. or other Standard Authorities, and therefore all the combinations are well tried and of recognised value.	5. Because the coating of <i>pure transparent gelatine</i> preserves the contents from oxidation.
3. Because they are taken pleasantly—being tasteless—and readily, being ovoid in form.	6. Because they are always soluble, and the contents soft and quickly disintegrated.

Aloes, all the B.P. combinations.....	5 gr.
Aloes, Dilute (Dr. Hall Dianer Pill).....	4 gr.
Aloes Barb. Sapoalis Pulv.	Pulv. Ext. Glycyrrh. Theriacal; && 1 gr.
Aloes and Nux Vomica— Aloes Sec. 1½ gr.	Ext. Nucis Vem. ½ gr.
Aloin	¼, ½, ¾, 1 gr.
Aloin, various combinations.	
Anti-Dyspepsia (Fethergill)— Strychnine ½ gr.	Pulv. Ipecac. 2-3 gr. Pulv. Piper Nig. 1½ gr. Ext. Gent. 1 gr.
Arsenious Acid.....	1-20, 1-50 gr.
Asafetida, U.S. and B.P.	5 gr.
Atropine.....	1-100, 1-300 gr.
Blue Pill, B.P.	1, 2, 3, 5 gr.
Blue Pill, with Colocynth and Hyoscyam.	5 gr.
Calcium Sulphide	1-10, 1-4, 1-2, 1 gr.
Calemel, Colocyn., and Hyosc.	5 gr.
Calemel Co., B.P.	5 gr.
Camphor and Hyoscyam.....	2 gr.
Camphora.	Ext. Hyoscy., && 1 gr.
Cannabis Indica	1-4, 1-2 gr.
Cassara Sagrada	3 gr.
Cathartie Comp., U.S.P. Ext. Jalap. 1 gr.	Hyd. Subohlor. 1 gr. Ext. Coloc. Co. 1-3 gr. Gambog. 1-4 gr.
N.B.—The ready solubility of the “McK. & R.” Pills is readily proved by taking a dose of these.	
Colocynth Comp., B.P.	4, 5 gr.
Colocynth, other combinations.	
Copaiba Compound— Cubaeba Pulv. 2 gr.	Mess. Copalb. 1 gr. Ferri Sulph. Exsic. .. 1-2 gr. Tereb. Venet. 1-1-2 gr.
Corrosive Sublimate	1-30, 1-20, 1-10 gr.
Oroton Oil	1-2 gr.
Diaretic— Ext. Buobu, Potass. Nitrat. 1 gr. Seilles Pulv. 1-2 gr.	
Emmenagogue— Ferr. Sulph. Exsic. 1-1-2 gr. Thus, American 1-1-2 gr. Aloes Socot. 1-2 gr.	
Ergotin	3 gr.
N.B.—Each Pill = 30 gr. ergot or 30 ms. fl. extract. This form is more reliable and uniform in effect and more agreeable than the Liquid preparations.	
Eucymia	2, 3 gr.
Iodoform and Iodoform with Iron	1 gr.
Ipecac.	1-4, 5 gr.
Ipecac. Co.	5 gr.
Ipecac. and Squill, B.P.	5 gr.
Iron Pill, B.P. Add.	3, 5 gr.
Iron Arseniate.....	1-8 gr.
Iron reduced by Hydrogen (Quevenne).....	1, 4 gr.
Iron and Quinine Citrate	2 gr.
Laxative, Vegetable— Res. Podoph. Ext. Hyoscy. Ext. Tarax, && 1-4 gr.	Ext. Coloc. Co. 1 gr. Jalapae Res. Leptand. && 1-2 gr. Ol. Menth. Pip.
Mercury, Biniodide	1-16 gr.
Mercury, Proto-Iodide	1-20, 1-16, 1-8, 1-4 gr.
N.B.—Made from the absolutely pure yellow impalpable powder, free from mercury and from biniodids. So-called “green” proto-iodide contains uncombined mercury.	
Mercury with Chalk.....	1 gr.
Morphine Muriate.....	1-8, 1-4 gr.
Nitro-Glycerine.....	1-200, 1-100, 1-50 gr.
Opium	1 gr.
Opium and Campher.....	1 gr.
Opil Pulv. 1 gr.	Camphora 2 gr.
Pepsin, Pure	1 gr.
Phosphorus	1-100, 1-50, 1-30 gr.
N.B.—In no kind of Pill are the advantages of the “McK. & R.” method better exemplified or more in request. No other brand of Phosphorus Pills is equally reliable for the administration of the unoxidised medicament.	
Phosphorus and Iron— Phosphor. Pur. 1-50 gr.	Ferr. Redact. 2 gr.
Phosphorus, Iron, and Quinine— Phosphor. Pur. 1-100 gr.	Ferr. Carb. 1 gr. Quinine Sulph. 1 gr.
Phosphorus and Nux Vomica— Phosphor. Pur. 1-50 gr.	Ext. Nucis Vem. 1-4 gr.
Phosphorus and Quinine— Phosphor. Pur. 1-50 gr.	Quinine Sulph. 1 gr.
Phosphorus and Valerianate of Zinc— Phosphor. Pur. 1-50 gr.	Zinci Valer. 1 gr.
Florotoxin	1-80 gr.
Podophyllin	1-8, 1-4, 1-2 gr.
Quinine, Bisulphate	1-4, 1-2, , 3, 4, 5 gr.
Quinine, Sulphate	1-4, 1-2, 1, 2, 3, 4, 5 gr.
Quinine Co. (Anti-Malarial).	
Largely prescribed in America with excellent results.	
Rhubarb Comp., B.P.	5 gr.
Rhubarb with Blue Pill	5 gr.
Salicylic Acid	2, 5 gr.
Soap Comp., B.P.	5 gr.
Squill Comp., B.P.	5 gr.
Strophanthus	1-20, 1-4 gr.
Strychnine	1-50 gr.
Tonic Laxative (Fothergill)— Quinine Sulph. 2-3 gr.	Ferr. Redact. Strychn. 1-30 gr. Ext. Bellad., && 1-4 gr.
Valerianates, Iron, Quinine, and Zinc.	
Warburg's Tincture and the same without Aloes.	
Each Pill = 1 fl. arm. of the Tincture.	
Zinc Phosphide	1-4, 1-2 gr.
Zinc Valerianate.....	1 gr.

Special Combinations of 8,000 or more Pills made and Capsuled to order for Hospitals, &c., at Special Quotations.

London Agency:—Messrs. S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, E.C.

ALSO SUPPLIED BY

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MESSRS. GRIMWADE, RIDLEY & CO., 7 Union Court, Old Broad Street, London, E.C.

TASTELESS PILLS.—COX'S PATENT.



DATED AND SEALED APRIL 13th, 1854.



AND AS A FURTHER PROTECTION

The Registrar of Trade Marks (after giving the usual public notice prescribed by Parliament to allow of opposition) has granted us the appended **TRADE MARK**, and no pills will be sent out without this mark on all bottles or packages.

OUR NEW (JULY, 1894) CATALOGUES SENT POST FREE ON APPLICATION.

These contain 800 Coated and Uncoated forms of different strengths, requiring not less than 3,000 bottles and jars, and our stock includes the majority of the approved new remedies (suitable for pilular form) up to present date.

Medical Men and Chemists are requested, when ordering through Wholesale Houses, to specify

COX'S TASTELESS PILLS,

Or order direct from us, we paying postage and carriage.

Our prices, with the usual discount for prompt payment, will be found to compare favourably with any makers where the best drugs and chemicals are used; and our trade, which is constantly increasing amongst the highest class of Medical Men and Chemists, is doubtless *four or five times* as large as the rest of our copyists put together.

ANY FORMULA DISPENSED AND COATED.

QUOTATIONS AND SAMPLES FREE.

ARTHUR H. COX & CO., ORIGINAL MAKERS OF
TASTELESS PILLS,



ST. MARTIN'S PLACE, BRIGHTON.



Telegraphic Address—"COX BRIGHTON."



SUGAR-COATED PILLS, COMPOSED OF THE PUREST DRUGS.

SOLUBLE, RELIABLE IN ACTION, PERMANENT. Special Net Price List. Cash with Order.

Packed in Gross Screw-capped Bottles	Per doz.	10 grs. lots	50 grs.	100 grs.	Packed in Gross Screw-capped Bottles	Per doz.	10 grs. lots	50 grs.	100 grs.	Packed in Gross Screw-capped Bottles	Per doz.	10 grs. lots	50 grs.	100 grs.
1d. per gross extra.					1d. per gross extra.					1d. per gross extra.				
Antibillious	1/-	11d.	10d.	9d.	Hamilton	1/1	1/-	11d.	10d.	Podophyllin	1/-	11d.	10d.	9d.
Assafœtida	8d.	7d.	6d.	6d.	Indigestion	1/-	11d.	10d.	9d.	Quinine	1/2	1/-	11d.	10d.
Blaud	6d.	5d.	4d.	4d.	Laxative	10d.	9d.	8d.	7d.	Rhubarb	9d.	8d.	7d.	6d.
Castor Oil	9d.	8d.	7d.	6d.	Little Liver	5d.	4d.	4d.	3d.	Squill	8d.	7d.	6d.	5d.
Colocynth	1/-	11d.	10d.	9d.	Liver	1/-	11d.	10d.	9d.	Steel and Aloes ..	8d.	7d.	6d.	5d.
Dandelion	1/-	11d.	10d.	9d.	Mercurial	8d.	7d.	6d.	5d.	Tonic	1/-	11d.	10d.	9d.
Female, Al. et Ir. ..	8d.	7d.	6d.	5d.	Neuralgia	1/-	11d.	10d.	9d.	Vegetable, &c.	9d.	8d.	7d.	6d.
Gregory	1/-	11d.	10d.	9d.	Opium	1/-	11d.	10d.	9d.					

The Pills are also put up in glass tubes containing 4, and the Little Liver 8 in each tube, and sell at One Penny per tube. They are packed on cards of 3 dozen, and in gross boxes with glass lid at 7/- per gross tubes assorted; also in screw-capped bottles to sell at 6d., 3/6 per dozen, 36/- per gross bottles; 6 gross assorted 1d. tubes in handsome mahogany case, 42/-.

Private recipes compounded, rolled, and coated, in 8 to 10 days, made all sizes from 1/4 to 4 grains. The formula for any Pill will be given when required. Wholesale Agent—Mr. P. A. WOOLGAR, 31 Snow Hill, London, E.C.

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FOR ANÆMIA OR POVERTY OF BLOOD

JOLLY'S "DUCHESS" PILLS HAVE NO EQUAL.

We are willing to supply a very attractive and beautifully-tinted showcard, the size of which is 12 by 16 inches, to any chemist on application. The design is a lady's head surrounded by a wreath of various fruits and their leaves, each fruit being reproduced in its original colour. This card is unique and cannot fail to attract notice when placed in a shop window.

Jolly's "Duchess" Pills are being well advertised; the sales are large and steadily increasing. We will supply these pills at the most reasonable terms providing you agree to show the card above mentioned in your window; and to every purchaser of 12 or more boxes we will give a written guarantee to take back any boxes not sold within a year (and return the money), if the seals have not been broken.

We will be glad to supply dummy boxes to any chemist who will undertake to exhibit them.

Write for full particulars, **JOLLY & SON, 219 OXFORD STREET, LONDON, W.**

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HIGHEST AWARD
CHICAGO EXHIBITION
1893.



These Cachoux are supplied only } No. 4's at 3/6 doz. (Export).
in Brass Boxes, of which there } No. 5's at 4/- doz. (Home Trade).
are three sizes. } No. 6's at 7/- doz. (Export).

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Manufactured by
THOMAS JACKSON, Strangeways, MANCHESTER.

MALT EXTRACT.

E. LECONTE & COY.

THE LARGEST MALT EXTRACT MANUFACTURERS IN THE WORLD.

3 GOLD MEDALS AND LEGION OF HONOUR for Scientific Improvements in the
Manufacture of Malt Extract, &c.

DIASTASIC MALT EXTRACT, prepared in Vacuo from the finest Barley, and specially made for Manufacturing
Chemists to combine with other preparations. Also for Medicinal purposes, Brewers, Vinegar and Wine Makers,
Bakers, and Confectioners.

MALT EXTRACT MANUFACTURED ANY DIASTASIC STRENGTH REQUIRED.

MALT EXTRACT AND COD LIVER OIL.

Samples and Quotations on Application.

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WORCESTER, READING, HARVIE, YORKSHIRE, AND "BOROUGH" KETCHUP.

SILVER MEDAL.

	Per gross.	Extra quality.		Per gross.	Extra quality.
14. Sample Bottles, dozen parcels	5/3	6/3	1/2 Bottles, flat or round, repnted half-pints	16/-	22/-
" " 1-gross boxes	5/3	6/3	" " pints	26/-	32/-
14. Giant " dozen parcels	6/8	8/8	1 Pint Imperial, round stoppered bottles	52/-	62/-
" " 1-gross boxes	7/-	9/-	12 1/2-Gallon Casks (casks free)	20/-	22/-

ROYAL CAFE SAUCE, a Rich Fruity and Exquisite Flavour.

Square Glass Stoppered Bottles, containing nearly 1/2-pint Imperial, 42/- per gross. Sample Bottles at 7/- per gross.

MANUFACTORY — 30 SOUTHALL PLACE, LONG LANE, BOROUGH, LONDON, S.E.
CHIEF SCOTCH AGENCY — West Nile Street, GLASGOW.

To H.R.H. The Prince of Wales, The Empress of Germany, &c.

BRAND & CO.'S
PEPTONES
OF
BEEF,
MUTTON,
VEAL,
AND
CHICKEN.



NONE GENUINE WITHOUT THE

TOWER TEA

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"We have submitted to examination the Teas of the Great Tower Street Tea Company (Limited). They all yield liquors which are generous to the taste, and of full strength and vigour. The results of our analysis indicate the purity and genuineness of the samples."



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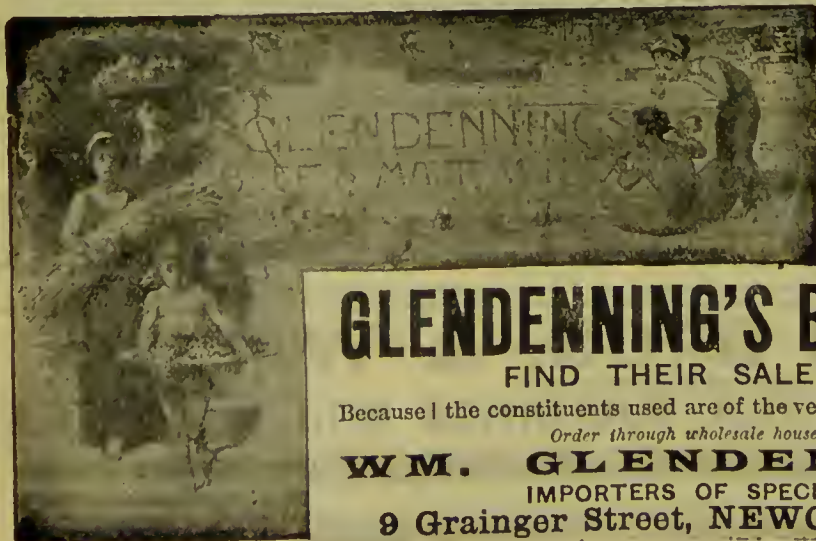
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PRIZE MEDAL, PARIS, 1889.

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5 JEWRY STREET, LONDON, E.C.



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BRINGS ITS OWN REWARD.

THOSE WHO SELL

GLEN DENNING'S BEEF & MALT WINE

FIND THEIR SALES INCREASE. WHY?

Because the constituents used are of the very finest quality, and the public are finding it out

Order through wholesale houses or direct from Sole Proprietors—

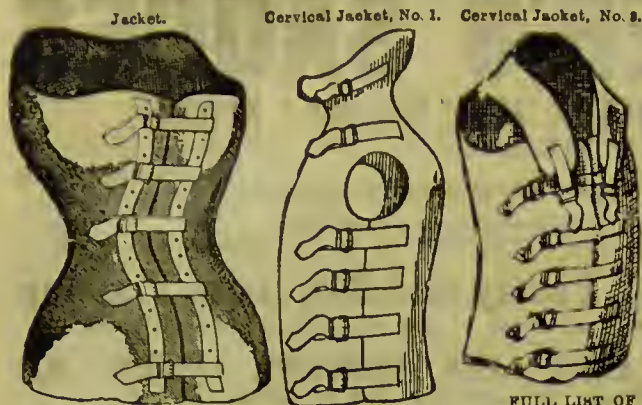
WM. GLEN DENNING & SONS,

IMPORTERS OF SPECIAL WINES FOR INVALIDS

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Established 1867.

COCKING'S ADAPTABLE PORO-PLASTIC JACKETS AND SPLINTS.

Patentee and
Sole Manufacturer, J. T. COCKING, PLYMOUTH.

JACKET

(In cases of slight deformity).

INSTRUCTIONS
FOR MEASUREMENT.

Circumference at axilla.
" waist.
" hips.
Length from axilla to great trochanter.

In severe angular cases, circumference over apex of curve, position of ditto, and contour should be given; in lateral cases a description of the case. In all cases it must be stated if for male or female.

CERVICAL JACKETS.

Same measurements required, and circumference at neck, and length from neck to axilla. Any part of the Jacket can in the process of manufacture be left soft.



FULL LIST OF SPLINTS AND PORO-PLASTIC SHEETS MAY BE HAD ON APPLICATION.

CHEST & LUNG PROTECTORS.

THE LARGEST SELLING
LINE IS THE

"EUREKA" MEDICATED PINE WOOL FELT

Invented and Manufactured Solely by me.

All Full Sizes. Colour, Golden Brown. Medicinally prepared, Porous, and Washable.

Sizes	0	1	2	3	4	5	6	Sizes	0	1	2	3	4	5	6
Single .. Per doz.	6/-	7/6	9/6	12/6	15/6	18/6	21/6	Double .. Per doz.	13/-	15/6	20/-	25/-	30/-	36/-	42/-

FELT PROTECTORS.

Best Quality, in Scarlet, White, Natural, and Fur Felt.

Sizes	0	1	2	3	4	5	6	Sizes	0	1	2	3	4	5	6
Single .. Per doz.	4/6	5/6	7/6	9/-	11/6	15/-	19/-	Imperial Shape, Per doz.	12/6	14/6	19/6	27/-	34/-	40/-	48/-
Double .. "	10/6	12/-	16/-	21/-	26/-	34/-	42/-	Cuirass .. "	13/6	15/6	20/-	26/-	35/-	42/-	50/-

A TERRA-COTTA STATUETTE, under Glass Show Case, supplied free of charge to those purchasing large parcels. Send for full list of all kinds.

My Goods obtainable at these prices from all Wholesale Houses, or if unable to obtain, can be had direct from me,

VINCENT WOOD, Manufacturer of Surgical Appliances,

3 ST. ANDREW STREET, HOLBORN CIRCUS, LONDON, E.C.

Steam Works, Nottingham, Herne Hill, and Carlton.

Established 1840.

LESLIES' PLASTERS

Leslies' Patent Pillable Tape-plasters, Fine Calico, Holland, or Pink Cambric, in decorated Tin Boxes, $\frac{1}{2}$, 1, 2, 1 and $1\frac{1}{2}$ in. wide, 1s. each, 9s. per doz.; extra widths, 2 in. and 3 in., 1s. 3d. and 1s. 6d. each.Tapes, Silk, $\frac{1}{2}$ in., 1s. each, 9s. doz.; 1 in., 2s. each, 18s. doz.

Leslies' Surgical Case Tape Plasters (assorted widths), 10s. 6d.

Leslies' Brown Holland Self-adhesive Plaster, in 6 or 12 yard Tins, 6 in. wide, 3s. and 5s. 6d.

Leslies' Porous Plasters (easily removed), in 1 and 3 doz. boxes. $7\frac{1}{2}$ by 6 in., or in 1 or 6 yard decorated Tins.

LESLIES' ANTISEPTIC DRESSINGS.

LESLIES' LINT, ABSORBENT WOOL, BANDAGES, AND ALL SURGICAL DRESSINGS.

Write for Lists to **LESLIES, LTD.** Bond Court House, WALLBROOK, LONDON, E.C.

DR. MARTIN'S PURE RUBBER BANDAGES.

Registered Trade Mark.

For the
Radical Cure
of Varicose
Veins, Ulcers,
and other
Diseases of
the Leg.



CAUTION.—Please order Genuine Martin's Bandages, each being stamped with Dr. Martin's signature. All others are Spurious Imitations.

Complete Price List, Trade Discount, and Dr. Martin's Pamphlet post free.

No.	PRICES.	Feet	Inches	Each
3A.	Thin, for ankle, elbow, wrist, and forearm	8	2 $\frac{1}{2}$	3/6
3.	Thick	8	2 $\frac{1}{2}$	4/-
1B.	Thin, for leg below knee	10 $\frac{1}{2}$	3	5/8
1A.	Thick	10 $\frac{1}{2}$	3	7/8
8.	Thin, for leg and knee	14	3	9/8
7.	Thick	14	3	10/8
9B.	Thin, for leg and thigh	21	3	13/6
9A.	Thick	21	3	13/6

Sole Agents—**KROHNE & SESEMANN**, SURGICAL INSTRUMENT MAKERS, 8 DUKE ST., MANCHESTER SQUARE, LONDON, W.

"THE LEICESTER" PATENT WOUND & BED SORE PADS

Prepared with a pad of absorbent cotton-wool in the middle, and a self-adhesive border. Very useful for dressing wounds, ulcers, &c., and for shielding diseased surfaces from friction. Perfection for Bed Sores. Made all shapes and sizes, in boxes of 1 dozen. Can with ease be applied by patients ignorant of the science of bandaging.

An ARMY SURGEON writes:—"I think the idea is a capital one, and have no doubt but that it will be the first field dressing of the future."

Three dozen assorted (sizes inside the border: 2x2, 2x3, 3x3, 3x4, 3x5, and 4x4 inches—6 of each), on Holland, 2/6; on Waterproof Sheeting, 3/-.

MANUFACTURED ONLY BY

A. DE ST. DALMAS & CO., Medical Plaster Manufacturers, LEICESTER.

May be obtained of all Chemists and Wholesale Houses.

ESCHMANN BROS. & WALSH,
Inventors and Manufacturers of the
SOFT SILK FLEXIBLE CATHETER, GUARANTEED WITH WOVEN EYES.

To be had of all Surgical
Instrument Makers
and Wholesale Houses.



To be had of all Surgical
Instrument Makers
and Wholesale Houses.



A GREAT SUCCESS!!

BAILEY'S SUSPENSORY BANDAGES.

A. B. C. SYSTEM.



FIG. 1.

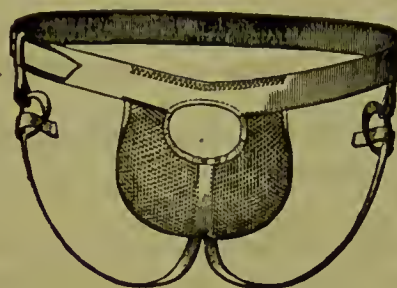


FIG. 2.

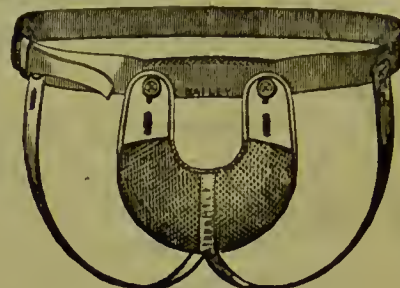


FIG. 3.

Cabinet of 2 dozen assorted, **30/-** USUAL DISCOUNT.

TESTIMONIAL.

GENTLEMEN,—Please repeat our last order for "Suspensory Bandages." We think your idea of arranging the sizes and qualities by the use of numbers and letters a very excellent one, as it is most convenient to the Chemist in ordering, and we find our customers make use of your method. It brings us many repeat orders.

The Foregate, WORCESTER.

Yours faithfully,

ANDERSON & VIRGO.

W. H. BAILEY & SON, 38 OXFORD ST., LONDON, W.
TELEGRAPHIC ADDRESS—"BAYLEAF LONDON."

TO THE MEDICAL PROFESSION AND CHEMISTS.

Owing to misapprehensions as to the amount of morphine used in the preparation of

Mrs. WINSLOW'S SOOTHING SYRUP,

we wish to state that the amount is one-eighth ($1/8$) of one grain to a fluid ounce. As there are eight teaspoonfuls to an ounce, the amount of morphine in a teaspoonful, our maximum dose, is one sixty-fourth ($1/64$) of a grain.

It will be seen that this is very much less than the quantity used in similar preparations authorised by the Pharmacopœia.

The Anglo-American Drug Company (Lim.),

W. RENAUD, Managing Director.

83 Farringdon Road, London.

Armour's Pure
Pepsin.
5 times
B.P.

NOW READY.

Armour's
Extract
of Beef.

4th EDITION of ARMOUR'S FORMULARY.

This Edition contains several new Formulæ, and will be sent free to all Chemists on application.

ARMOUR & CO. wish particularly to draw attention to the fact that their Formulary is not a List of Proprietary Preparations put up by them, but contains suggestions for Chemists' use.

ARMOUR & CO. are manufacturers of Pepsin and similar products, by reason of the unrivalled facilities they possess. They do not propose to encroach on the Chemist's legitimate trade of Dispensing the Prescriptions of Medical Men, or of compounding medicines for the use of the Physician or the public.

Armour's

LABORATORY

PRODUCTS.

ARMOUR'S LABORATORY PRODUCTS

Are all prepared on their own premises by competent Chemists within a stone's throw of the killing floor. These unique advantages are only possessed by ARMOUR & CO.

CHEMISTS

Are asked to write for specimens of Advertising matter bearing their own Name and Address, and also for details of the help we are glad to offer in cultivating a trade between the Chemist and the Physician.

ARMOUR ♦ & ♦ CO.

**59 Tooley Street,
LONDON, S.E.**

Armour's
Lactated
Pepsin.

Armour's
Glycerole
Pepsin Conc.

RESPIRATORY THERAPEUTICS.

PINOL.

PINOL is the pure essence, or volatile oil, distilled from the needles of the *Pinus Pumilio*, growing amid the perpetual snow which covers the peaks of the Alps. It is distinguished from the common pine oils by superior medicinal and



sanitary properties, and by its exquisitely delicate fragrance. The drug is largely employed in affections of the respiratory tract, including nasal catarrh, pharyngitis, quinsy, aphonia, asthma, pertussis, chronic bronchitis, and phthisis. For purposes of inhalation, Pinol may be used by means of either the Pinol

Steam Atomiser or the "Pinol-Eucalyptia" Dry Inhaler. The latter consists of a glass tube something like a cigar in shape, filled with absorbent pine-wood chips. One end of the tube forms a glass mouth-piece, and at the other end is a piece of wire gauze. The Pinol is dropped into the wide end



of the tube until the absorbent chips are saturated, and the In-

haler is then ready for use. By taking deep inspirations, the air drawn through the Inhaler is fully charged with the vapour of the Pinol. This mode of inhalation possesses special advantages over steam inhalations:—1. The Inhaler may be used at any time without danger of catching cold. 2. It is extremely portable, and may be carried in the vest pocket ready for immediate use.

Pinol supplied to the Trade, in $\frac{1}{2}$ -oz. and 1-oz. hottles, at 15/- and 24/- per dozen. "Pinol-Eucalyptia" Dry Inhalers, with a small sample bottle each of Pinol and Eucalyptia, 14/- per dozen. Inhalers without samples, 8/6 per dozen.

TEREBENE.

Terebene has been found of most decided utility in the treatment of many bronchial troubles. Pure Terebene possesses the same stimulating expectorant properties as a large group of terebinthines; it is, however, much more suitable for inhalation purposes than the latter, as all the resinous material has been eliminated in the process of manufacture. The drug tends to liquefy the sputum and facilitate expectoration; these qualities are enhanced by its inherent antiseptic properties when employed as an inhalant in the treatment of chronic pulmonary affections, as it exerts its antiseptic influence at the seat of infection. Terebene is more generally employed as an inhalant. If the vapour is to be inhaled dry, the Terebene may be used with a B., W. & Co. "Pinol-Eucalyptia" Dry Inhaler or a Menthol Pocket Inhaler.

Terebene supplied to the Trade, in 1-oz., 2-oz., 8-oz., and 16-oz. bottles, at 9d., 1/-, 2/-, and 3/- each.

"EUCALYPTIA."

"Eucalyptia" is extensively employed for inhalation and acts as a stimulating expectorant. It may be inhaled in combination with Ammonium Chloride vapour from the Vereker Chloride of Ammonium Inhaler, or dry with the "Pinol-Eucalyptia" Dry Inhaler or Menthol Pocket Inhaler. Such inhalations afford excellent results in catarrh, ozæna, cold in the head, sore throat, aphonia, asthma, bronchitis, and phthisis. A good method for using "Eucalyptia" in steam inhalations is to drop 30 minims of the oil on the sponge of a Wallich's Improved Inhaler, place in the jug a pint of boiling water, and inhale from the mouthpiece. The steam is drawn through the sponge without difficulty, and in passing through becomes thoroughly saturated with the "Eucalyptia," which is conveyed into the lungs and air passages.

"Eucalyptia" supplied to the Trade, in 2-oz. and 1-lb. hottles, at 15/- and 72/- per dozen.

MENTHOL.

Menthol possesses marked local anæsthetic, vascular, stimulant, and antiseptic properties. It produces prompt contraction of the vessels and acts as a sedative to the nerve terminations.



THE PORTABLE ORO-NASAL MENTHOL INHALER.

It may be effectively employed in the form of snuff, in hay asthma, chronic atrophic rhinitis, &c. The compound Menthol Snuff has the approval of the highest authorities. It contains Menthol, Ammon. Chloride, Cocaine, Camphor, and Lycopodium.

This does not clog up the nares, but effectually relieves catarrhal conditions of the nasal mucous membrane. The Portable Oro-Nasal Menthol Inhaler is an excellent little instrument, designed by Dr. Macnaughton Jones, for the oral and nasal inhalation of menthol in the cases cited. The case contains, besides the Inhaler, a solution of Menthol in Paroleine and a camel-hair brush for applying the medica-



MENTHOL INHALER
BURROUGHS WELLCOME & CO.

ment direct to the mucous membranes of the nasopharynx. The case complete may be conveniently carried in the pocket. We

also supply a Menthol Pocket Inhaler consisting of a simple glass tube filled with an absorbent medium. This is used in the same way as the "Pinol-Eucalyptia" Dry Inhaler.

Menthol Snuff supplied to the Trade at 8/- per dozen; Oro-Nasal Menthol Inhaler at 36/- per dozen; Pocket Menthol Inhaler, 12/- per dozen.

BURROUGHS, WELLCOME & Co., MANUFACTURING CHEMISTS,

LONDON—Snow Hill Buildings.

NEW YORK—Rhinelander Building, Rose & Duane Streets.

MELBOURNE—456 Collins Street West.

PARIS—Pharmacie Centrale de France.

BRUSSELS—Chas. Delacre & Co.

VIENNA—The Feld Apotheke (M. Krls, Proviseur), Stefansplatz 8.

Cable and Telegraphic Address—"BURCOME LONDON."

FURTHER REDUCTION IN PRICES OF "VASELINE."

"VASELINE" (Pure). Card Cases.	No. 1 size, 3/0½; No. 2, 6/1; ½-lb. Tins, 7/-; 1-lb. Tins, 12/- per doz.
"VASELINE," Blue Seal.	No. 1 size, 21/-, and No. 2 size, 42/- per gross.
"VASELINE" Cold Cream.	No. 1 size, 4/9; No. 2, 7/-; No. 3, 12/-; No. 4, 21/- per doz.
"VASELINE" Camphor Ice.	Tins or Tubes, 3/0½ per doz.
POMADE "VASELINE."	No. 1 size, 3/11, and No. 2 size, 7/10 per doz.
"VASELINE" Toilet Soaps.	Unscented, Perfumed, or Tar, 20/6 per gross.

CHESEBROUGH MANUFACTURING CO., 42 Holborn Viaduct, LONDON, E.C.
PROPRIETORS AND SOLE MAKERS OF "VASELINE."

HYPODERMIC 'TABLOID' POCKET CASES



These Cases comprise complete Hypodermic Equipments, but at the same time occupy so little bulk that the presence of one of them in the pocket is scarcely felt. Each case contains a carefully-selected syringe with two needles, a selection of Hypodermic Agents in "Tabloid" form, and a Mortar and Pestle for crushing the "Tabloids." The absolutely reliable character of Hypodermic "Tabloids," their accuracy of dosage, their physiological activity, and their freedom from irritative or acid salts, have been demonstrated countless times. For the ready and immediate preparation of solutions no method has yet been devised which offers to the medical profession the same advantages as the use of "Tabloids." The accompanying block represents the "Miniature" case, designed to hold, in addition to the syringe and needles, fifteen tubes of assorted Hypodermic "Tabloids." It measures only 3 x 2½ x ¾ inches, and is the smallest and most compact case yet produced.

Price, fitted complete, 14-

Burroughs, Wellcome & Co., Snow Hill Buildings, E.C.

BEST BLACK INK KNOWN.

DRAPER'S INK (DICHROIC).

When this Ink is used writing becomes a pleasure
May be had from all Chemists and Druggists and Stationers.

Can be obtained in London through Messrs. Barclay & Sons, Farringdon Street; W. Edwards & Son, 157 Queen Victoria Street, E.C.; F. Newbery & Son, Newgate Street; S. Maw, Son & Thompson, Aldersgate Street; Ayrton & Saunders, Dnke Street, Liverpool; Goodall, Backhouse & Co., Leeds; John Heywood, Deansgate Street, Manchester; James Hemington, 6 Moor Street, Birmingham; Henry Hodder, Broad Street, Bristol.

In Jars, 6d., 1s., and 2s. each.

London Depot—HAYDEN & CO., 10 Warwick Sq., E.C.

SOLE MANUFACTURERS—

BEWLEY & DRAPER (LIM.), DUBLIN.

Benger's Food.

For Infants, Children, and Invalids.

GOLD MEDAL AWARDED—HEALTH EXHIBITION, LONDON.
HIGHEST AWARD—ADELAIDE, 1887, and MELBOURNE, 1888.

The Lancet describes it as "Mr. Benger's admirable preparation."

The London Medical Record says: "It is retained when all other foods are rejected. It is invaluable."

The British Medical Journal says: "Benger's Food has by its excellence established a reputation of its own."

The Illustrated Medical News says: "Infants do remarkably well on it. There is certainly a great future before it."

Benger's Food is sold in Tins at 1/6, 2/6, 5/, & 10/, by Chemists, &c., Everywhere.

Wholesale of all Wholesale Houses.

The Chemist & Druggist

SUPPLEMENT.

Businesses Wanted
Businesses for Disposal
Premises to Let
Auction Sales

SATURDAY, SEPTEMBER 22, 1894.

Partnerships
Situations Vacant
Situations Wanted
Miscellaneous

A Copy of this Supplement is inserted in every number issued of "The Chemist and Druggist."

THE IMPORTANCE OF NEXT WEEK'S SUPPLEMENT

ALL those who have a Business to dispose of or want to buy one, who are in need of an Assistant or want a Situation, or have any announcement to make in this Supplement, should note that next week's issue gives them an exceptionally good opportunity of advertising. The circulation will exceed

FOURTEEN THOUSAND COPIES.

A Supplement will be inserted in every copy of THE CHEMIST AND DRUGGIST, and will be given free to anyone applying for it by post or at the Office. We shall be glad if Advertisements are sent in as early in the week as possible. We cannot insert Advertisements for this section received after 5 P.M. on Thursday.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£1,000.—LONDON, W.—Dispensing and Retail Business; situate in prominent position; corner shop, double fronted; returns between £950 and £1,000 yearly; large house; price £1,000, estimated value of stock and fixtures.

2.—£430.—LONDON, W.—Retail and Prescribing Business; returns £430 yearly; net profit over £200; single-fronted shop; house contains 7 rooms; private entrance; low rent; long lease; price £320 or valuation.

3.—£400.—LONDON, S.W.—Retail, Prescribing, and Dispensing Business; situate in main thoroughfare; returns nearly £400; gross profit about one-half; corner shop, double fronted and well fitted; house contains 10 rooms; side entrance; rent low; long lease; price £320; worth attention.

4.—£500.—LONDON, E. (Death Vacancy).—Ready-money Retail and Prescribing Business, situate in main thoroughfare; returns £500 yearly; double-fronted shop, well fitted; very moderate terms to an immediate purchaser; good Prescriber wanted.

5.—£900.—LONDON, N.W.—Dispensing and Retail Business; returns last year £900; modern fitted shop and ample stock; house contains 6 rooms and offices, with garden; price £800.

6.—£700.—SOUTHWARK (main road).—Good-class Retail and Dispensing Business, chiefly ready-money; returns about £700 yearly, increasing; net profit nearly half; the business can be greatly increased by an energetic man; about £600 required or offer.

7.—£800.—LONDON, S.E.—Retail and Dispensing Business, with a small portion of Dentistry; returns between £750 and £800 yearly; good profits; single-fronted shop, well fitted and good stock; convenient house and garden; rent low; long lease; price to an immediate purchaser, £400; worth attention.

8.—£900.—BERKSHIRE.—Good-class Family Dispensing and Retail Business; returns between £800 and £900 yearly; profits larger than usual; well-fitted shop, double-fronted; convenient house; long lease; price to be arranged.

9.—£1,200.—MIDLANDS.—Retail, Dispensing, and Prescribing Business; largely Proprietary articles, commanding a good local sale; the Business is situate in a market town; good agricultural centre; very good house attached; the investment requires about £1,000, for which full value is offered; full particulars on application.

10.—£800.—SOUTH COAST (near the Sea).—Good-class Dispensing and General Retail Business; situate in busy increasing locality; returns between £700 and £800 yearly; present hands 20 years; well-fitted double-fronted shop; good house, long lease; price about £600.

11.—£3,000.—WHOLESALE AND RETAIL.—Easy distance of London; good-class Business, established many years; returns between £2,500 and £3,000 yearly; commanding position; very good residence and business premises, in centre of the town; the investment of about £1,800 is required.

12.—£700.—KENT.—Situate in pleasant market town; Dispensing and Agricultural Business; present hands over 30 years; returns between £600 and £700 yearly, with excellent profits; handsomely-fitted shop, convenient house and garden; low rent; long lease; price to be arranged.

13.—£350.—MIDLANDS.—Unopposed Retail and Prescribing Business; returns about £350 yearly; very good profits; shop fairly well fitted; good house; rent £16 10s.; price about £200, or valuation; an energetic man can greatly increase the business.

14.—£300.—OXFORDSHIRE (Death Vacancy).—Small Retail and Prescribing Business, with Post Office; returns a little over £300 yearly; shop in good order, recently decorated; must be sold; will accept any reasonable offer; worth attention.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION. Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the special attention of a London Agent.

SPECIAL NOTICE.—Messrs. ORRIDGE & CO. have a large number of Businesses for Sale, suitable for Gentlemen with Small Capital, from £200 to £500.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT CROCKER & CO.

Valuer, 60 St. Stephen's Road, LEICESTER.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE. NO CHARGE TO BUYERS.

STOCKTAKING UNNECESSARY.—Stocktaking is always dreaded by Chemists, and with a competent Valuer is not necessary.

F. J. BRETT is prepared to estimate or to value entire stocks as they stand with little or no inconvenience to ordinary business, and has repeatedly done so with entire satisfaction to those adopting this mode.

STOCKS AND FIXTURES BOUGHT FOR CASH.

GLOUCESTERSHIRE.—Old-established country Retail in desirable part; price £1,050.—**LONDON, E.**—£750 returns; good-class Retail and Dispensing; lease; price £700.—**MIDLANDS.**—£1,400 returns; good-class easily worked country Retail; healthy part; price £1,100.—**KENT.**—£900 returns; profitable light Retail with good specialities; price £850.—**SUSSEX.**—£800 returns; nice country Retail; net profit over £250; price £600.

BERDOE & CO.

**CHEMISTS' TRANSFER AGENTS AND VALUERS,
30 JEWRY STREET, ALDGATE, E.C.
Established 1870.**

NOTICE TO VENDORS.

Having been for the past 23 years solely engaged in the Sale, Purchase, and Valuation of Chemists' Businesses, we have, as Transfer Agents and Valuers, the largest experience of any in the Trade. VENDORS placing their businesses in our hands for transfer may in all cases rely upon a speedy sale being effected without undue publicity. Terms forwarded post free on application. No sale, no charge.

BUSINESSES WANTED.

NO CHARGE TO PURCHASERS.

- 1.—**LANCASHIRE.**—First-class Retail and Dispensing Business; same hands 25 years; net profit £600 yearly; shop is handsomely fitted and heavily stocked; price £1,600, or offer.
- 2.—**MIDLANDS.**—Retail, Dispensing, and Prescribing Business; returns £1,250; net profit £350; valuation about £600; no goodwill.
- 3.—**SEASIDE (KENT).**—Good-class Retail and Dispensing Business, making a net profit of £450 yearly; price £1,200.
- 4.—**BERKSHIRE.**—Good-class Retail and Dispensing Business; returns £900; net profit £390; good house; price £800.
- 5.—**GLOUCESTERSHIRE.**—Old-established Retail Dispensing and Prescribing Business; returns £1,200; good house; price £1,000.
- 6.—**LANCASHIRE.**—Retail Dispensing and Prescribing Business; returns £1,200; net profit £350; price £600; trial allowed.
- 7.—**ESSEX (few miles out).**—Good-class Retail and Dispensing Business; returns £1,000; net profit £400; price £900.
- 8.—**SOUTH COAST.**—Retail and Dispensing Business; returns £700; net profit £300; good house; price £500.
- 9.—**WEST-END.**—Good thoroughfare; returns £1,300; low rent; good house; price £800, or valuation.
- 10.—**LONDON, S.W. (Good position).**—Retail and Prescribing Business; returns £5 weekly; net rent £10; price £130, or offer.

VALUATIONS.

SPECIAL ATTENTION is paid to Valuations, which are personally conducted by a member of the firm, in any part of the United Kingdom. Our terms, which are moderate, may be had on application.

Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

THOMAS TOMLINSON & SON

Chemists' Consultants, Investigators, Transfer Agents, and Valuers,

9 NEW CANNON ST., MANCHESTER.

Forty-four years' experience, during which period they have transferred, valued, or arbitrated over 1,000 Businesses.

BUSINESS WANTED.—Thomas Tomlinson & Son, having on their books an extensive list of gentlemen who have entrusted them with commissions to look up a good genuine Business, intending sellers can rely upon being at once, with all despatch, put into communication with *bona fide* buyers without publicity and the annoyance of answering "curiosity" applications. **No charge made unless Sale is effected.**

Businesses for disposal at Bradford, Torquay, Worcester, Derby, Preston (2), Manchester (5), Boston, Penbrooke Dock, Cleethorpes, Wakefield, Scarborough, Barnsley, Blackburn, Newton Abbot, Cheshire, Puddington, Croydon, Bradford (Botanical), Oldham, Liverpool (4), Accrington, Redditch, Skipton, Sheffield, Southport, Maldenhead, Essex, Bolsover, Derby, Camden Town, &c.; also a good Dental Practice in Yorkshire; also one 10 miles North of London.

NO CHARGE TO PURCHASERS.

Telegraphic Address—"TOMTOM."

Sole Proprietors—Mr. WILLIAM JUDD and Mr. ALFRED MANNERS,

**Trade Valuers, Transfer Agents, and Accountants,
15 WALBROOK, E.C.**

Valuations made for Probate or Transfer, Books Audited and Balance Sheets prepared in any part of the United Kingdom.

KENT (in pleasant Market Town).—An old-established Family trade, returning about £900 yearly; net profits over £300; price £600, or offer; good house, handsome pharmacy, and pleasant situation.

EASTERN COUNTIES.—An old-established Retail, Prescribing, and Dispensing trade, with Patents and Oils; returns £1,250; price £1,100, or valuation terms can be arranged; serious illness cause of sale.

HOME COUNTY.—Country Retail, with valuable agency; returns £800; price £350; nice house, with garden, at an extremely low rent.

SEASIDE (KENT).—Retail and Dispensing; returns £500; low rent; price £400; a good investment.

LANCASHIRE.—High-class Retail and Dispensing; returns £1,460 fine, handsome pharmacy and valuable stock.

NO CHARGE TO PURCHASERS.

Valuations a Specialty. Terms on application.

BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

See Notice on front page of this Supplement.

IN the main street of the largest town in Devon, a Retail and Prescribing Business; easily doubled; 11 years' lease at low rental. "Chemist," 5 Saltram Place, Plymouth.

FOR immediate disposal, a Branch Business in a populous neighbourhood; established 5 years; fixtures and stock at valuation. Apply, H. Fairhurst & Co., Horse Market Street, Warrington.

PRESTON.—Offers wanted for old-established Drug Business; good Doctor's trade attached; would make a successful Drug Store; every convenience, house, stables, and warehouses. Apply, 157 Friargate, Preston.

DEATH VACANCY.—An old-established, unopposed Retail and Prescribing Business for sale in a large village well surrounded; rent, £16. For price and other particulars apply to R. W. Peach, Donington, Spalding.

OLD-ESTABLISHED Chemist and Druggist Business for sale, in good locality, east end Glasgow, main thoroughfare; stock and fittings about £130; drawings about £400; splendid opening for energetic man with small capital. Particulars from Martin & Barrie, Solicitors, 97 Buchanan Street, Glasgow.

DRUG-STORES (capital district).—Fixtures and all Stock £200; cost £250; rent £30 only; takings £5; this is an excellent opening for young man with energy. Hughes & Fleetwood, Valuers and Estate Agents, 19 Bennett's Hill, Birmingham.

£450.—Select Retail and Dispensing Business in Cheshire, with Post-office attached; established over 15 years; been under management last 4 years; returns average £550; could be increased. Apply, "Chemicus," 41 Plimsoll Street, Edge Hill, Liverpool.

TO Proprietors of Drug Stores.—To be Sold for Valuation of Stock and Fixtures, small stock of Drugs, Business at 30 Queen Street, Burslem, known as Tresson's Drug Stores; good opening for an old-established Drug Store and Branch. Apply to Morten, Outier & Co., Solicitors, 99 Newgate Street, London.

IMEDIATELY.—A small neat Light Retail; well stocked; situated in good central position on Kent coast; doing fairly good business under manager; would increase materially with resident proprietor; price £250 cash down, or valuation; personal inspection invited. Griffith, Medical Hall, Canterbury.

LANCASHIRE.—Retail, Dispensing, Prescribing, Proprietaries; returns average nearly £700; scope for great increase under energetic management; good profits; fully stocked; low rent and rates; owner retiring from business; price £530. 200/10, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£800 or valuation; a Retail Business in the centre of manufacturing town in the North; returning £1,000 per annum; under manager; a good opportunity for anyone liking a cash trade; with plenty of room for increasing. Address, 207/38, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BIRMINGHAM.—Old-established Chemist and Dentist's Business for disposal; present occupier 25 years; suitable for large business stores; suburbs of Edgbaston; present takings £650, which can be greatly increased; rent £45, lease granted. Address, "Dentist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON, N.W.—Retail and Prescribing Business; established over 30 years; returns about £5 per week; profits larger than usual; double-fronted shop, fairly well fitted; house contains 8 rooms; private entrance; low rent; price £60; a good opening for an energetic man. "Alpha," c/o Orridge & Co., 32 Ludgate Hill, E.C.

SITUATIONS WANTED.

1s. for 12 words : 6d. for every 6 words beyond.

See Notice on front page of this Supplement.

MINOR: excellent reference. J. Y. Fairweather, 35 Castle Street, Forth.**ASSISTANT**: 23; good references. W., c/o T. P. Walker, Unstone, Sheffield.**JUNIOR**: 21; indoors; 6 years' experience. Bromley, 84 Regent Street, Hull.**IMMEDIATELY**, Assistant; 9 years' experience. Dawson, 52 Thorold Road, Ilford.**ASSISTANT**: qualified; 21; 5 ft. 9 in.; abstainer. Williams, c/o Sillitoe, Redhill.**JUNIOR**: nearly 21; excellent references. E. S., 11 Whitehouse Street, New Out, Bristol.**LOCUM** or Manager; experienced; Wholesale or Traveller not objected to. Z., Yapps, Bury.**PART-TIME**: London or suburbs; 24; disengaged October 10. E., Field Foot, Grasmere.**LONDON**: junior; part-time; 20; good experience. Guy, West Street, Chipping Norton.**JUNIOR**: 20; 3 years' experience; indoors. W. Wright, Springfield Cottage, Sandal, Wakefield.**ASSISTANT**: aged 26; London and country experience. "Drugs," 5 John Street, Fife, Yorks.**IN** October, Surgeon's or Chemist's Dispenser; married. H. M., 79 Leighton Road, Kentish Town.**LOCUM**: 40; good references; disengaged end September. F. G., Shrimpton, Grove Street, Oxford.**AS** Assistant or Manager, by qualified chemist; aged 42. S. Hassall, 143 Charles Street, Hanley, Staffs.**SITUATION** wanted; aged 26; well up in Patents and Sundries. C. W., 66 Lausanne Road, Hornsey.**MANAGER**, Senior, Loem; 45; qualified; experienced: references. M., 30 Church Street, Camberwell.**SOUTH** of France for season; aged 29; qualified; tall. X. Y. Z., 27 Smith Square, Westminster, S.W.**ASSISTANT**: 10 years' experience; height 5 ft. 11 in.; aged 27. Thompson, Rosary Corner, Norwich.**ASSISTANT**: 29; Extractor and Prescriber; outdoors preferred. W., 136 South Street, Moor, Sheffield.**LOCUM**: qualified; 23; abstainer; disengaged September 28. A. E. Dealve, Chelston Pharmacy, Torquay.**PART-TIME**.—One, two, or three evenings a week, and Sunday duty. "Chemist," 82 Crowndale Road, N.W.**MANAGER**: qualified; aged 30; 5 years as manager in last situation. "Chemicus," 418 Brixton Road, S.W.**MANAGER**, temporary, day, week, or month: references to date. "Fides," 6 Park Road, Crouch End, N.**LOCUM-TENENS** or Branch; permanency; good references. S., Mr. Pierce, Chemist, West Croydon.**PART-TIME**: outdoor; Chemist or Surgeon; Good Dispenser and Book-keeper. M., 2 Barnsbury Road, N.**26**: unqualified; London and best class country experience; outdoors. T., 34 Afleck Street, London.**JUNIOR** (outdoors), 20, 4 years' London experience, requires situation, London. Lewis, c/o Norman, Godalming.**TO** Doctor or Chemist; 3 or 4 hours daily; 6 years' experience. "Rhei," 36 Perihore Road, Edgbaston, Birmingham.**COUNTERMAN**: cash business; aged 26; London and country references. D., c/o Mr. Rickard, Fife, Yorks.**PILL** Maker and Coater, 15 years' practical experience; good references. "Rhei," 152 Broughton Lane, Manchester.**LOCUM**, Temporary, or Manager; middle-aged; qualified; extractor, "Pharmacist," 54 Kenninghall Road, Clapton, N.E.**ASSISTANT**: 23; unqualified; London, West-end; outdoors; disengaged 29th. Edwards, 100 Humberstone Road, Leicester.**MANAGER** or Dispenser: 35; qualified; country experience. Bosner, St. Oswald's Road, Small Heath, Birmingham.**ASSISTANT**: October; Dispensing Counter preferred; good experience. F. Bridgwood, 24 Church Road, West Brighton.**IN** good-class business; London; 22; 5 years' experience; good references; indoors. H. Pattison, 418 High Street, Cheltenham.**33/- WEEKLY**, outdoors, Manager; 30; outdoors, Assistant-ship; qualified. 36 Wrexham Fechan, Wrexham.**WINTER** engagement; qualified; 23; tall; disengaged middle October. "Rhei," 9 Walnut Road, Cockington, Torquay.**ASSISTANT**: South of France; Minor; 24; first-class West-end and City experience. M., Sydney House, Bell Road, Hounslow.**MANAGER**: Assistant; 24; 9 years' experience; Minor. 207/34, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**AS** Senior or Branch Manager; experienced; highest references. 207/21, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**LOCUM-TENENS** or Branch Manager; family or mixed business; registered; disengaged. "P. D. S.," 13 Barnston Street, Hull.**JUNIOR**: aged 20; indoors; 5 years' experience; London preferred; disengaged. "Student," 24 George Street, Enston Road, London.**MANAGER**: qualified; aged 27; height 6 ft.; experienced; good knowledge of Dentistry. H. M., 166 High Street, New Brompton.**MANAGER**, Locum-tenens, Dispenser; qualified; married; disengaged in October. "Hydrarg," 109 Stuart Street, Luton, Beds.**MANAGER** or Locum-tenens; aged 45; qualified; married; disengaged. Forbes, 10 Muster's Road, West Bridgeford, Nottingham.**ASSISTANT**: 22; accustomed to good-class business; London preferred; highest references. "Rumex," 2 Havelock Terrace, Southampton.**BRANCH** Manager or Assistant; qualified; 27; view early succession; near London preferred. "Chemist," 1 Eckstein Road, Clapham Junction.**JUNIOR**: 21; disengaged October 11th; Drug Stores preferred. Address, 203 32, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**JUNIOR**: 21; second week October; one or two evenings weekly for lectures. 204/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**AS** Dispenser, Book-keeper, to Medical man (outdoors); permanency; unqualified; disengaged September 28. Dyett, 45 Somerset Road, Ashford, Kent.**ASSISTANT**, indoors, London, in good-class Dispensing and Retail; good references; disengaged middle October. Purnell, Malvern House, Clevedon.**LOCUM** Dispenser, K.C. Hospital, London, is open to new engagement; letters only. 206/33, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**TRAVELLER**, London, wants good commission; connection home and export. Mostyn, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**JUNIOR** Assistant; 22; tall; abstainer; 5 years' experience; good references; native from country. Morgan, 83 Boundary Road, St. John's Wood, London.**WHOLESALE** Pharmaceutical Chemist desires to obtain experience in Laboratory. 207/36, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**ASSISTANT** in a high-class modern business; in or outdoor; abstainer; aged 30; good counterman and dispenser. W., 7 Evelyn Gardens, Richmond, S.W.**QUALIFIED** Assistant; Kent, Sussex, or South Coast preferred; tall; 26; West-end and provincial experience. A. P. S., Rose Cottage, Dorrington, Salop.**ASSISTANT**: 12 years' experience, Stores trade; good references; disengaged October 6. 204/12, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**JUNIOR**, high-class experience; good Dispenser; understands Photography; highest references; height 5 ft. 10 in. Windemer, Drunkley & Rogers, Tunbridge Wells.**QUALIFIED** Assistant (21), 5 years' experience, desires situation in good-class Dispensing business; abstainer. J. Holmes, 54 Hazelhurst Road, Bradford, Yorks.**CHEMIST** desires permanent berth, with good prospect of advancement; aged 27; married. 206/27, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**MANAGER**, permanent or temporary; qualified; 45; 5 ft. 10 in.; special, all round experience; abstainer. "Chemicus," Park House, Chart Sutton, Staplehurst, Kent.**JUNIOR** or Improver; 19; just finished 4 years' apprenticeship; references to late employer; Yorkshire preferred. "Seidlitz," 3 Commercial Street, Huddersfield.**AS** Chemist's Assistant, or Dispenser to Doctor; 28; unqualified; outdoors; 13 years' All dispensing, retail, general experience; permanency desired. "Delta," 31 Mytongate, Hull.

SITUATIONS OPEN—Cont.

WANTED, Junior Assistant; indoors; about 20. Apply, with usual particulars, to G. Ostler, Star Hill, Rochester.

WANTED, a qualified Assistant with good Dispensing experience; capable of managing. Enclose carte, stating salary required indoors, to Walter Price, Chemist, Eastbourne.

QUALIFIED man wanted, with good Counter experience; outdoors; good references indispensable; knowledge of Dentistry preferred. J. Beezler & Co., 20 Norton Folgate, E.C.

GILES, SCHACHT & CO., Clifton, want a qualified Junior Assistant; indoors; must write well. Please give details of experience, age, height, and salary required.

WANTED, soon, a gentleman (outdoors) for good-class Dispensing Business; qualified; about 25. Particulars as to salary, &c., to Miller, Chemist, 30 Tranquil Vale, Blackheath.

COMPETENT Assistant wanted, aged about 23, in good-class business. State age, height, salary required, references, &c., and enclose photo, to Anderson & Virgo, Chemists, Worcester.

CHINA.—Good opening for a qualified well-experienced man of about 25; good salary; short hours; furnished quarters and passage paid. Apply to Dakin Brothers, 87A Leadenhall Street, E.C.

INDOOR Assistant; unqualified; age not under 25; two kept; market town; Dispensing and Retail business. Full particulars to "Ajax," c/o Maw, Son & Thompson, 7 Aldersgate Street, London.

OCTOBER 3.—A smart active Assistant about 21; one with a knowledge of Photography preferred. State age, height, and full particulars, enclosing photo, to John H. Smith, Newark-on-Trent.

EXTRACTS.—Wanted, thorough practical workman able to extract tobacco-juice from the leaf; good prospects. Apply to 193/39, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DISPENSER and Book-keeper wanted; outdoors; hours, 9 A.M. to 9 P.M., excepting two hours for meals; time for reading. State references, age, and salary required. Dr. Pletts, Ryde, Isle of Wight.

WANTED, Assistant (indoors) for good-class Retail, Dispensing, and Photographic business. Apply, with reference, salary required, and photo (which will be returned), to Berridge, Chemist, Leicester.

WANTED, immediately, Junior Assistant; indoors; must be neat and accurate Dispenser. State age, height, salary required, reference, and send photo (to be returned), F. Richards, Chemist, Shaftesbury.

FOR CHINA.—Wanted, immediately, one or two thoroughly competent Assistants, with first-class Dispensing and good all-round experience. Address, "X," c/o Messrs. Horner & Sons, Mitre Square, Aldgate, E.

IMMEDIATELY, a gentlemanly Assistant (Minor qualification), well up in Dispensing; London experience; indoors. Please enclose photo, with references. W. R. Howard, 4 Napier Road, Kensington, W.

WANTED, immediately, a Junior Assistant, indoors, in a Dispensing and Light Retail business. Apply, stating age, height, and salary required, to Adams, Chemist, 21 Formosa Street, Maida Vale, London, W.

PART-TIME Junior, in return for board and lodging (indoors); personal application preferred, if by letter state age, references, and enclose carte; close to colleges. Apply, Bunker, 135 Great Dover St., S.E.

SMART Junior wanted, for October 1; one speaking French preferred; short hours; outdoors; no Sunday duty. State experience and salary required to Hay, Sherborne House, Norwood Road, Herne Hill, S.E.

FIRST-CLASS opening in English Chemist's in Japan, for qualified Assistant, about 25, with really good London experience; short hours; liberal salary. Full particulars to Dakin Brothers, 87A Leadenhall Street, E.C.

WANTED, at once, qualified Assistant (indoors); must be a good Dispenser. Apply, stating age, height, salary required, where last, and when at liberty, to "Thes," 316 High Road, Kilburn, N.W. (photo, if convenient).

WANTED, single gentleman, qualified, as Manager, Extractor, and Prescriber; salary £60 per annum (indoors). Apply, stating full particulars, to "South Wales," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR wanted, first week in October, indoors; must be active and obliging; time for study; not under 20 years. Apply, enclosing c.v., stating salary required, age, height, references, to W. Jacobs, Chemist, Guildford, Surrey.

WANTED, foreign Assistant, to learn English and English pharmacy; must speak French and German fluently; light work, short hours. Apply, stating full particulars, to Pharmacie Internationale, 16 Queen Victoria Street, E.C.

QUALIFIED Manager for a Retail and Prescribing business, N.E. single; indoors; state age, references, which must be good, and salary required; applications by letter only. Address, "North east," 78 Wells Street, Oxford Street, W.

JUNIOR Dispenser wanted for extensive business in the North; outdoors; must be qualified. Apply, stating age, with photo and full particulars of experience and salary required, 205/20, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

QUALIFIED Assistant; indoors; aged about 24; experienced and reliable Dispenser; accustomed to first-class business; abstainer preferred. State experience and enclose photo, or apply personally, R. H. Parker, 35 Clifton Road, Maida Vale, W.

WANTED, a qualified Assistant for a cash business in a seaport town; must be a pushing business man; one used to Prescribing and Extracting preferred; outdoors; no Sunday duty; please state age, height, and salary required. Bobley, Chemist, Soham.

QUALIFIED Assistant, of good appearance and address, and with first-class experience at the front counter. Apply, with full particulars as to age, experience, photograph (if possible), references, and salary required, to Brady & Martin, Newcastle-on-Tyne.

COUNTRY Traveller wanted, to represent a first-class Manufacturing House, to call on Chemists, Medical Men, and Stores, in the North of England; usual expenses allowed with salary and commission of from £150 to £200. Apply by letter, to N. 52 Herbert Road, Wimbledon.

SYDNEY, AUSTRALIA.—Registered Chemists' Assistants coming out to Sydney should call or write to Pattinson & Co., the largest Retail Chemists in Australia; preference given to young men used to a quick Cash Store trade. Pattinson & Co., Chemists, Sydney.

WANTED, at once, qualified Assistant for Folkestone branch (outdoors); qualified Manager for new branch (shortly to open); Junior for Chelsea; must all have good general and store trade experience. Apply, Bishop's Drug Company, King's Road, Sloane Square, Chelsea, S.W.

AN Assistant possessing the Minor qualification, of about 25 years of age, with good address, can hear of a situation abroad by addressing his application to 130/35, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C. A passage will be provided, and a good salary paid to a suitable man.

E. G. PORTLOCK & SONS, Wotton-under Edge, require at once, a steady, trustworthy Junior or Improver, accustomed to Mixed Country trade; state age, experience, when at liberty, and salary expected. Also Vacancy for well-educated youth as Apprentice; premium moderate.

WANTED, active Junior Assistant, about 22 years; outdoors; one used to Country Agricultural trade, able to take charge in absence of principal; abstainer preferred; plenty of time for study. Particulars, age, reference, salary required, and photo (to be returned), to Sage, Frome, Somerset.

TRAVELLER visiting Chemists in and around London, and able to take up another good commission, can hear of same by addressing A. Z., Box 14, Self's Advertising Offices, London. Commission or commission and part expenses; must have established connection and good references.

WANTED, a qualified Assistant, indoors, for a Mixed Country business on the sea coast; no Sunday duty; hours 8 to 7, Wednesdays 4 P.M.; one desiring a permanency preferred. Apply, stating salary required, and usual particulars, Horniblon & Co. (Limited), Watchet, Somerset.

WANTED, Assistant, married, registered, to manage a small Mixed Country Retail and Prescribing business in a colliery district in Durham; house unfurnished; hours short. Apply, stating salary, experience, references, age, &c., to "Chemist," c/o Mr. Wm. Foggitt, Market Place, Thirsk.

MANAGER.—A capable man required to manage a Wholesale (Dublin) Drug-house (fine drugs). Applicants will please give full particulars as to qualifications, salary, &c.; a gentleman capable of introducing new preparations desirable. Apply to 127/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BRANCH Manager.—Wanted immediately, a qualified man about 30; salary £60 and commission, indoors, with good references; tooth-extractor preferred; also personal application. Otherwise send photo, reference, &c., to Morris, Chemist, Tottenham, London, N., close to Seven Sisters Road (Great Eastern) Station.

IN October, managing qualified Assistant (single), indoors; to energetic front-counter man with good references a permanency is offered; salary £75 and increase; easy hours; Sundays off; a personal interview necessary in London or South Coast. Address, "Hampshire," c/o Messrs. Theobald Bros. & Co., 23 St. Swithin's Lane, London.

BY October 10, competent Assistant; qualified; accustomed to very good class Dispensing and suburban trade; separate sitting-room; half-holiday weekly; commencing salary £65, indoors; aged about 23. Apply, stating height, reference, &c. (enclosing carte, to be returned), to Mr. R. Thomas, 38 Linnet Lane, Sefton Park, Liverpool.

INDOOR Assistant, aged about 25, wanted by end of September for London business; man with London experience preferred; must have unexceptionable references and be a good worker and Salesman. State salary and full particulars, with photo (if convenient), to "Stamford," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, Outdoor Assistant (commence October 31, about 23, to manage, under supervision, mixed Branch, in poor populous neighbourhood; also Junior, outdoors (at once), for good-class light Retail and Dispensing; must be gentlemanly, and have good references. All particulars and photo in first letter, A. Middleton, Chemist, Nottingham.

AMERICAN Drug Firm offers profitable commission to travellers calling on Chemists, Drug-stores, Grocers, &c., in town and country; goods of easy sale, samples few and light; please give, on first application, particulars of ground covered and references to well-known firm. Apply, "Chicago," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES FOR DISPOSAL—Cont.

OLD-ESTABLISHED Chemist's; must be sold; been neglected; has done £9 to £11; price as it stands £30, or without stock £20; rent, shop and parlour, 12s.; main road E.C. Mrs. H. W., c/o Wickens, 301 High Street, Hoxton.

LONDON, N.W.—Light Retail and Dispensing Business; in same hands 34 years; returns between £500 and £600; through ill-health, must be sold at once; a capital opening for Dentistry. Apply, J. A., 14 England Lane, Belsize Park.

£65.—Neglected Retail, situated about 20 miles from London, in small town, on main Great Western Railway; to anyone seeking a nucleus this is a chance seldom met; shop only wants stocking to do £10 weekly at once. "Bargain," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CITY.—First-class light Retail and Dispensing Business; returns over £1,700 at full prices for everything; capable of very considerable increase; the position is one of the best in the City of London, and such as very seldom comes into the market; price £1,000, or valuation of stock and fixtures; no goodwill; immediate sale desired. "Byronia," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LIVERPOOL.—A bargain, in consequence of continued ill-health of Proprietor; old-established Prescribing, Dispensing, and Cash Retail Business; handsome corner shop, in busy thoroughfare; lowest cash price £450; *bond-fide* purchasers only treated with; references required. Address, "Bottle," c/o Evans & Co., 56 Hanover Street, Liverpool.

LONDON, W.—Ready-money Retail, Prescribing, and Dispensing Business, in busy main thoroughfare; plenty of room for increase; well-fitted shop, with good stock; house, with garden; lease, 6½ years unexpired; rent £65; returns average over £1,000; price £450. Apply, 193/16, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£300.—Death vacancy; suburb of London; under management last 2 years; returns (1893) £643 in Retail and Prescribing; net profit £240 after paying rent, taxes, gas, and boy; corner double-fronted shop; good house; rent £50 on lease; only £300 required. "Widow," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£250.—For Sale, the best Herbal and Prescribing Business in Lancashire; known all over the county; fair Drug and Sundry trade done; established sale for own Proprietaries; Teeth-extractions nearly pay rent; double-fronted shop, in principal thoroughfare; large house and store-rooms; rent low; a bargain. Address, 205/18, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES WANTED.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

See Notice on front page of this Supplement.

WANTED, immediately, a small Chemist's Business in a busy thoroughfare; returns from £3 to £4 per week; rent must be moderate; London or suburbs preferred. Apply, L., 210 Burdett Road, Bow.

WANTED, genuine Light Retail Business, returning about £700; middle or good class neighbourhood in provincial town; with good house attached. Give full particulars, 205/31, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, Retail and Dispensing Business returning about £800; must bear full investigation; or bonus of £5 will be given, if advice is acted upon, to anyone pointing out suitable opening for Chemist's Business. 207/39, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO LET.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

See Notice on front page of this Supplement.

LONDON, S.W.—Shop to Let, suitable for "Store" Chemists, near Warwick Street and Victoria Station; very busy market; rent £75, greater part lets off if required; no immediate competition to fear; long or short lease or agreement. "S.V.R.," Cale Street Distillery, Chelsea, S.W.

STRAND (278).—Just been rebuilt at enormous expense; all modern improvements.—To be Let on lease direct from freeholder, with immediate possession, an entire house, comprising spacious well-lighted shop with large light back office on ground floor, extensive basement and 4 upper floors of 8 large and light rooms, in one of the best positions in this thoroughfare, near Law Courts, and surrounded by private hotels; suitable for chemist; rent for whole £300 per annum; no premium for lease; or freehold would be sold cheap. Further particulars, W. George, 10 Holywell Street, Strand, W.C.

PARTNERSHIPS.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

See Notice on front page of this Supplement.

ADVERTISER invites correspondence with an old-established Retail and Dispensing firm, situated in a good provincial centre, and desirous of extending their business in the Wholesale with Surgeons' specialties. Excellent references exchanged; no agents. "Cantab," 17 Beaumont Road, Hornsey Rise, London, N.

SALES BY TENDER.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

See Notice on front page of this Supplement.

RE EDWIN WORTH, BOURNEMOUTH.

TO CHEMISTS AND DRUGGISTS.

FOR SALE BY TENDER, the whole of the STOCK OF A GOING CONCERN, including Chemicals, Surgical Appliances, and the GENERAL STOCK OF A FIRST-CLASS CHEMIST AND DRUGGIST, also the very superior Mahogany and other FITTINGS AND UTENSILS OF TRADE, to be cleared by the 29th inst.

For particulars apply to the Trustee,

Mr. GEORGE BONE,

Shaftesbury Hall Chambers, Bournemouth.

The trustee does not bind himself to accept the highest or any tender.

APPRENTICESHIPS.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

See Notice on front page of this Supplement.

PUPIL wanted in a City Laboratory to thoroughly learn Analytical Chemistry. Well-educated and intelligent youth may apply to "Chemists," Box 28, Sell's Advertising Agency, London.

WANTED, a gentlemanly youth as an Apprentice; comfortable home; time for recreation, and every facility for learning the business; premium required. F. Wellington (formerly Hitchcock), The Parade, Taunton.

To Chemists and Druggists.—Wanted, immediately, for a well-educated youth who has passed the Preliminary for a Chemist, a situation as an indoor Apprentice. Apply to J. F. James, Seed Merchant, &c., Market Place, Long Sutton, Lincolnshire.

SITUATIONS OPEN.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

See Notice on front page of this Supplement.

QUALIFIED, quick Dispenser, at once; no night or Sunday duty. Apply personally, S. F. Goss (Limited), 460 Oxford Street, W.

WANTED, smart successful Traveller for London, &c., for Wood-varnishes; no amateurs. Pickard & Co., Saxon Road, Sheffield.

REQUIRED, qualified Junior Assistant; outdoors; state salary and all particulars. Address, W. C. Jones & Co., 23 Bayswater Terrace, W.

WHOLESALE Drug Trade.—Commission Traveller, with connection South and West of England. Letter to W., 23 Harringay Park, Crouch End.

WANTED, Assistant, aged about 26, single, competent to manage during absence of principal. Allen & Sons, Market Square, Basingstoke.

ROYAL United Hospital, Bath.—Wanted, immediately, an Assistant Dispenser; aged about 20 years. Apply, stating salary required, to Secretary Superintendent.

JUNIOR for good-class Dispensing business. Apply, stating age, height, salary required, references, and when disengaged, W. W. Jones & Co., Kingsdown, Bristol.

DRUGGISTS' Traveller, with retail experience, to call upon Doctors. State salary and qualifications, 130/46, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS WANTED—Cont.

JUNIOR; 22; 7 years' good experience. B., 1 Oxford Place, Doncaster.

JUNIOR; 19; London; disengaged after 24th. C. Vallet, 89 High Street, Battle.

REALLY Good man wants responsible position. H., Highfield Cottage, Forest Hill, S.E.

ASSISTANT (24); disengaged; references; good experience. H., 18A Priol Street, W.

ASSISTANT; 24; part-time; near schools preferred. "Quinque," 552 Kingsland Road, N.E.

EVENINGS; outdoors; 22; quick Dispenser; excellent references. W., 19 Keppel Street, W.C.

DISPENSER (Surgeon's); aged 27; disengaged; unqualified. "Rhet," 68 Blenheim Road, Gloucester.

LOCUM-TENENS, or Branch Manager; qualified. Jelley, 4 Buckingham Street, Fitzroy Square, W.

TEMPORARY; disengaged; 2 years last engagement. "Minor," 6 Charlotte Street, Fitzroy Square.

ASSISTANT; 22; disengaged; good experience; London; outdoors. 1 Emily Street, Westbourne Square, W.

BRANCH Manager or Locum; qualified; good experience; aged 36. "Statim," 11 Upper Lewes Road, Brighton.

ASSISTANT; 6½ years' experience; disengaged; London. Moore, 1 Gowan Avenue, Munster Road, Fulham.

JUNIOR, 22, 7 years' experience, is desirous of obtaining permanent position. "Mistura," 43 York Street, Jarrow.

TEMPORARY; qualified registered Dentist; well up; good appearance; disengaged. 113 Stoke Newington Road.

TEMPORARY or otherwise; disengaged; qualified Prescriber, Extractor, &c.; experienced. W., 53 West Square, S.E.

TRAVELLER; disengaged; good varied experience. "Drugs," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS, or Branch Manager; Family or Mixed business; registered; disengaged. S. Coates, Pateley Bridge, Yorkshire.

JUNIOR Assistant; time for study; 7 years' experience; abstainer. "Radix," c/o Thompson, opposite the School, Olifton, York.

LOCUM or Permanency; 24; 5 ft. 10 in.; West End experience; excellent references. "Antipyrin," 14 St. Julian's Road, Kilburn, N.W.

UNQUALIFIED; 40 years; Extractor, Prescriber for Doctor; small wages. Boulton, 46 North Street, Oudehouan Road, King's Cross.

TRAVELLER; London and provincial experience; excellent references; good connection. L. R., 58 Beauchamp Place, London, S.W.

MANAGER; qualified; married (no family); Extractor, &c.; used to gas; highest testimonials. Tasker, 58 Wynt Road, Forest Gate.

DISPENSER to Doctor or Chemist; unqualified; aged 26; height 5 ft. 11 in.; good appearance. Walas, 6 Richmond Terrace, Cambridge.

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NOTICE TO THE PUBLIC.

WHEREAS Abbott's Patent Adhesive Vaccination Shield Syndicate, of 12 Renfield Street, Glasgow, having discovered that Messrs. Blyth & Staward, Chemists, 59 Great Junction Street, Leith, had been guilty of Infringing Abbott's Patent Adhesive Vaccination Shield, by exposing for Sale and Selling Shields not of their manufacture, in imitation of their Patent Adhesive Vaccination Shield, recently called upon them to apologise therefor, destroy or deliver the Shields remaining in their possession, undertake not to sell any more spurious Shields, and to pay a sum in name of damages, the said Blyth & Staward have granted the following apology and undertaking, in respect of which, and the payment therein mentioned, the Syndicate have agreed not to take legal proceedings against them:—

59 Great Junction Street,
Leith, Jn y 25, 1894.

Gentlemen.—We hereby acknowledge that we have recently manufactured and sold Adhesive Vaccination Shields, similar to those manufactured and sold by you. Since you called our attention to the matter we have not sold any of the Shields in question, and we undertake and further agree to deliver to you the remaining Shields complained of in our possession. We regret if we have caused you any inconvenience or loss, and offer you this apology, with £7 7s. in name of damages and costs in full of any claim you may have against us. Your obedient servants,

(Signed) BLYTH & STAWARD.

Messrs. Abbott's Vacc-Shield Syndicate,
12 Renfield Street, Glasgow.

ABBOTT'S PATENT ADHESIVE VACCINATION SHIELD SYNDICATE HEREBY GIVE NOTICE, That if at any time any person is discovered Selling, or exposing for Sale, Vaccination Shields not of their manufacture, representing such Shields to be of their manufacture, the necessary legal proceedings will at once be instituted against such person.

A. WILKIE OROALL,
of 219 Hope Street, Glasgow,
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